THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

VOL. CXIII.—No. 3891. AUGUST 31, 1917.

INDUSTRIAL COUNCILS.

THE Reconstruction Committees Report on the subject of Joint Standing Industrial Councils has just been issued, and contains interesting recommendations affecting the relations between employers and workers which will be of outstanding importance at the conclusion of the war when the country is faced with the keen commercial competition which will follow the conclusion of peace, and when the results of the wastage of war will add an additional factor which will emphasize the importance of agreement as to aims between Capital and Labour. The Sub-Committee state in their report that :—

> After a general consideration of our duties in relation to the matters referred to us, we decided, first, to address ourselves to the problem of establishing permanently improved relations between employers and employed in the main industries of the country, in which there exist representative organisations on both sides. The present report accordingly deals more especially with these trades. We are proceeding with the consideration of the problems connected with industries which are less well organised.

A note of warning follows as to the necessity of making use of the present opportunity, since, if action is not taken now, we may be involved in grave difficulties which will seriously militate against national prosperity. It is stated that :—

> The circumstances of the present time are admitted on all sides to offer a great opportunity for securing a permanent improvement in the relations between employers and employed, while failure to utilise the opportunity may involve the nation in grave industrial difficulty at the end of the war.

It is urged that improvements in the relations between Capital and Labour should offer Labour the means of obtaining a higher standard of comfort generally, and involve the enlistment of its active and continuous co-operation in the promotion of industry; and this object is to be secured, in the opinion of the Committee, by the establishment of joint standing councils in industries where they do not already exist, which shall be composed of representatives of employers and employed, such councils to represent each industry; and the recommendation is that the Government should invite various industries to form these councils. It is suggested that the choice of chairman of such bodies should be left to each council, but four alternative propositions are made, viz., a chairman for each side of the council, or a chairman and vice-chairman elected from the members of the council one for each side, a chairman chosen from independent persons outside the industry, and, lastly, a chairman nominated by some outside authority, or, failing that, by the Government.

The thorny question of the restoration of trade-union rules is accorded prominent notice, as it really lies at the root of the whole matter, for if the strict application of these rules is insisted on as formerly the whole structure of our industries becomes stereotyped, it is all but impossible to largely increase production with economy, and this will render the demand for greater wages one that cannot be met, which, in its turn, makes the increased standard of comfort demanded by the workers an impossibility. If we are to be satisfied with a falling rate of production per man, while in America and our own Dominions the ratio of production is increased, this country would need to be an El Dorado to stand the continued strain. The Committee's statement on the matter is as follows :—

> One of the chief factors in the problem, as it at first presents itself, consists of the guarantees given by the Government, with Parliamentary sanction, and the various undertakings entered into by employers, to restore the trade-union rules and customs suspended during the war. While this does not mean that all the lessons learnt during the war should be ignored, it does mean that the definite co-operation and acquiescence of both employers and employed must be a condition of any setting aside of these guarantees or undertakings, and that, if new arrangements are to be reached, in themselves more satisfactory to all parties but not in strict accordance with the guarantees, they must be the joint work of employers and employed.

While the definite pledge which has been given is sacred, it is abundantly clear that Labour must either moderate its demands for increased wages and other improvements or else co-operate with Capital to make it commercially possible to give better wages and improved conditions. Labour may be said, in the past, to have been a sleeping partner in industry, who has complained of the dividends. What is wanted in the future is that Labour should be an active partner, understanding the essential fact that it lies within its power to largely increase dividends, in the shape of wages, by intelligent co-operation instead of suspicion which is mainly based on ignorance. It is proposed—

> (*a*) That District Councils, representative of the Trade Unions and of the Employers' Association in the industry, should be created, or developed out of the existing machinery for negotiation in the various trades.
>
> (*b*) That Works Committees, representative of the management and of the workers employed, should be instituted in particular works to act in close co-operation with the district and national machinery.

Care will have to be taken that the relative provinces of the various committees formed are carefully defined so as to prevent overlapping, as it is proposed that three types of bodies should be constituted—the district and works councils to which we have alluded, and national councils for each trade which will form the chief authority for that trade.

It is suggested that the scope of the questions which the national councils should either deal with directly or allocate to the district councils should be as follows :—

> (i) The better utilisation of the practical knowledge and experience of the workpeople.
>
> (ii) Means for securing to the workpeople a greater share in and responsibility for the determination and observance of the conditions under which their work is carried on.
>
> (iii) The settlement of the general principles governing the conditions of employment, including the methods of fixing, paying and readjusting wages, having regard to the need for securing to the workpeople a share in the increased prosperity of the industry.
>
> (iv) The establishment of regular methods of negotiation for issues arising between employers and workpeople, with a view both to the prevention of differences, and to their better adjustment when they appear.
>
> (v) Means of ensuring to the workpeople the greatest possible security of earnings and employment, without undue restriction upon change of occupation or employer.
>
> (vi) Methods of fixing and adjusting earnings, piecework prices, &c., and of dealing with the many difficulties which arise with regard to the method and amount of payment apart from the fixing of general standard rates, which are already covered by paragraph (iii).
>
> (vii) Technical education and training.
>
> (viii) Industrial research and the full utilisation of its results.
>
> (ix) The provision of facilities for the full consideration and utilisation of inventions and improvements designed by workpeople, and for the adequate safeguarding of the rights of the designers of such improvements.
>
> (x) Improvements of processes, machinery and organisation and appropriate questions relating to management and the examination of industrial experiments, with special reference to co-operation in carrying new ideas into effect and full consideration of the workpeople's point of view in relation to them.
>
> (xi) Proposed legislation affecting the industry.

It may be desirable at a future date for the State to give the sanction of law to the decisions arrived at by the councils, but it is not proposed to do it at this stage, nor are any suggestions made on such points as co-partnership and profit-sharing, which are, it is considered, best dealt with by the organised industries themselves. A further report of the same Committee will deal with those industries which are either very loosely organised or wholly unorganised.

In reply to a question addressed to the Reconstruction Committee, it is unequivocally stated that the Government will reinstate trade-union rules at the termination of the war unconditionally and completely unless the trade-unions affected decide that they do not want it done, so that the workers may be relieved from all misgivings that advantage will be taken of a concession made by them for purposes of the war alone. As will be seen, the scheme outlined is very similar to that proposed in Mr. E. J. P. Benn's book to which we alluded a few weeks ago, except that it is not proposed to establish an industrial franchise. We believe that such a franchise might be of very great service and would render the decisions of the councils of greater weight and importance, and would bring home to everyone connected with industry that they had a voice in its management, while we believe the application of the system would be easy and unexpensive. It would also—and this is no small gain—tend to diminish the relative importance of the political franchise, based as it has been for centuries on party lines productive of much unnecessary friction and waste of effort; and if we could only fix attention on the paramount importance of the stimulation of production for the well-being of every class in the country, a great central party would gradually be formed united by common aims and aspirations, while the extremists and faddist doctrinaires at either end of the scale would be a discredited and an unimportant minority. If the war gave birth to such a condition of things, future generations would recognize that not only had the peace and well-being of Europe been rescued by the effort and strain of the present generation, but that the foundations of peace, well-being, and concord within the country itself had been established on a firm and adequate basis for all time. The folly and want of clear and logical judgment on the part of nations have probably been more productive of misery and unhappiness than the deliberate crime and evil of any section in the nations which compose the great commonwealths of the earth.

NOTES.

Housing Schemes.

MR. BAILLIE SCOTT and others have written letters urging that housing schemes shall be carried out by those who have made a study of the subject and can be trusted to consider the harmony of situation and environment, and it is to be hoped that such may be the case. At the same time we have to remember that there are two schools of architects: one, of which Mr. Baillie Scott is an example, who have studied the question from its æsthetic and individualistic side and have been more concerned in trying to revive the old traditions of English architecture in isolated buildings; and the other school who may be said to be mainly concerned with the scientific cutting up and arrangement of sites and groups of buildings, and is more concerned with this than with the desire to stamp individuality on each block of buildings or on each house; and it must be mainly by conforming to such general considerations that the larger schemes of the near future can be solved. We cannot, if we would, reproduce an old English village in a settlement built at one time and not—like the old village—the work of the gradual aggregation of several centuries; and this is where we think that Mr. Baillie Scott and others who think with him do not see very clearly. To apply an illustration drawn from a more ambitious scheme, our future country towns will tend to have a greater similarity to Richelieu than to St. Albans; for symmetry, which is in many ways anathema to Mr. Baillie Scott, is the logical result of the consideration of a large scheme composed of small parts which are dealt with at the same time.

A War Museum.

WE confess to being sorry to see that the project of forming a War Museum is finding favour in official circles, as we believe that after the first fanfaronade of notice with which it will be received, we shall admit that we have introduced another white elephant into our midst. Those who are interested in the Napoleonic wars will study the pages of Alison, and those who wish to follow the history of the present wars will doubtless study the pages of a large number of histories replete with every detail, which will be written from every point of view, in every European language. Those who are scientifically inclined will find abundant detail of the mechanical inventions of engines of destruction in technical works, while drawings, pictures, photographs and cinema films will give any who want to dwell on the scenic effects of war all the material they will want. Does anyone want to visit a building filled with weapons or models of them, shells, models of battlefields or models of hospitals and collections of uniforms? If the scheme ever materialises it will result in a building which will be visited by loungers who have been attracted there because admission is free, or because it forms a convenient meeting place, for it is unlikely to serve a more useful purpose. If we wish to record the events of the war it would be more to the point to raise a large sum of money to cover the cost of a staff to collect and collate material under the direction of a great historian in order to produce the fullest and most complete history of the war possible, a history the accuracy of which had been sifted and examined link by link and pronounced by competent critics to be an adequate record of the great events of history. Probably the publication of such a work could not be undertaken until many of the great actors in the present conflict had passed away and no harm could be done by the recital of fact. But neither the present generation, which has had the reality of war brought home to it, nor future ones faced with other and more insistent problems, will, we think, want a museum which would be frequented neither by students or those in search of pleasure or recreation.

A People's Theatre.

ACCORDING to the daily press a scheme is afoot (of which details can be obtained from the Hon. Sec., Nelson House, Coldharbour, Poplar, E. 14) for the erection of a people's theatre at Poplar to commemorate those who have fallen in the war. The cost of the site and theatre is stated to be £35,000, and a further £25,000 will be required for additional expenses. The building is thus referred to in the notice we have seen:—"During its building, the theatre would be a great workroom and training school for men in a neighbourhood to which the many crafts needed are peculiarly suitable. When built it would be a beautiful place, with a large stage, a sliding roof, the best of fittings before and behind the curtain, decorations speaking of the district and the lives of its people, exterior balconies for use during the intervals, and many novel devices for brightness, gaiety, and convenience which there is no space to mention. And besides the theatre there is to be a large open-air dancing-floor, and places where the visitors may eat and drink cheaply and decently." It is proposed that the work shall be proceeded with by means of the partially disabled soldiers who have returned from the war, who, it is suggested, will thus "help to build their own memorial," and in this theatre everything old or new is to be given. Much as we appreciate enthusiasm, we may suggest, first, the impossibility of getting a permit for the erection of such a building till after the war; secondly, the want of success which has hitherto prevented the erection of the Shakespeare Memorial Theatre in central London itself; thirdly, the fact that such a theatre must be heavily endowed. It might be possible in the neighbourhood of some of our country towns to form small open-air theatres, which would not necessitate building but simply the formation of turf amphitheatres and screens of trees; for these, though they could only be used in summer and on special occasions, would be at all times beautiful, and might fittingly take their places as simple monuments of a great event.

"If Women built Houses."

UNDER this title the President of the National Federation of House Builders of Manchester writes to the *Daily Mail* welcoming the suggestion that women should be trained as architects. He says that the success of those who build houses depends on "meeting the requirements of the wife and mother in the construction and arrangement of houses. There has been no difficulty in doing this when the economic ability to pay was existent." Although there has been a vast improvement in working-class dwellings in the last twenty years, he states that the improvement has not been all that could be desired for many reasons, the first of which is that the wages of the working classes have not been sufficient, while in the second place building by-laws have occasioned unnecessary expenditure, forcing the builder to abandon improvements which would otherwise have been effected, a contention which he says has been amply proved by the Government schemes for building in munition areas in which they have scrapped the by-laws. All this is true, and points in our opinion to the vital necessity of the issue of new Local Government By-laws which shall constitute a standard beyond which the expenses arising out of further regulations should be borne by the public body. Fully as we willingly admit both the industry and the earnestness of women, and fully as we favour their free participation in the field of architectural practice, we believe they would discover that in becoming architects they would find themselves exposed to the same class of criticism that the male architect is exposed to, while they would frequently realise that the so-called faults of the architect are the result of the impossible effects of compelling circumstances.

THE LONDON CHURCHES OF WREN AND LATER ARCHITECTS OF THE RENAISSANCE.

No. LXVI.—Holy Trinity Church, Portland-road.

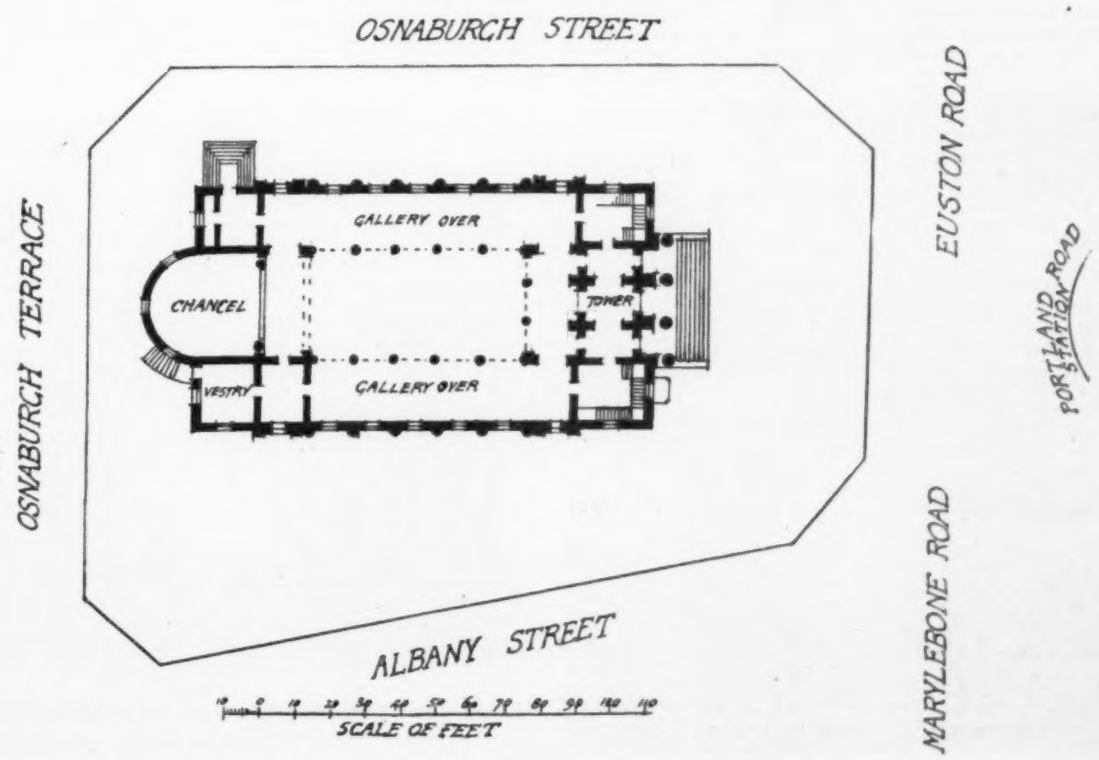
This church forms a conspicuous landmark opposite Portland-road Station and occupies an island site between Osnaburgh-street, Albany-street, Osnaburgh-terrace, and Portland-road. It is one of the best compositions of its date externally, the steeple rising gracefully above and slightly in rear of the screen of four columns which marks the entrance front. Owing to its situation, its axial line is nearly north and south, but it has an advantage over the neighbouring church of St. Mary-le-Bone because the full effect of its well-defined projections are emphasised by sunlight. The main order is Greek Ionic, but the detail of the church is treated in an Italianate spirit, and so it escapes the note of pedantry which characterises the churches of the Greek Revival. The interior is not so successful, as the scale of detail is somewhat small as well as being commonplace in its character. The lower order, which separates the nave from the aisles is Greek Doric, but the upper order is composed of very ill-considered octagonal columns, which give an appearance of triviality to the whole composition, nor is the chancel, with its elliptical ceiling, a pleasant feature. While the exterior treatment is characterised by dignity, the interior possesses little or none. A very pleasing external pulpit was added during the eighties on the northern side of the entrance front. The best feature of the church is the skilful placing of the steeple in connection with the front, a marked improvement on the combination of pediment and steeple so often adopted in the churches of the later Renaissance in England.

Holy Trinity Church, Portland-road.

Professional Announcement.

Messrs. George Baines & Son, architects, 5, Clement's Inn, Strand, London, W.C.2, have removed temporarily to 121, Victoria-street, Westminster, S.W.1, during the Government occupation of Clement's Inn for the duration of war.

HOLY TRINITY CHURCH PORTLAND ROAD.



GENERAL NEWS.

House Famine at Barrow.

The scarcity of houses for the artisan and working classes in Barrow has become very serious. About 2,000 more workmen's houses are wanted at the present time. The Ministry of Munitions has already agreed to build 250 houses, which the Barrow Corporation will take over after the war at a valuation.

Public Bomb Shelters.

The ninth death as the result of last week's aeroplane raid on Ramsgate is reported. At the inquest the jury returned a verdict of "Death due to bombs dropped by hostile aircraft," and added a rider that the provision of public bomb shelters was urgently necessary, and that the cost should be met by the Government. The Deputy-Mayor said that he had called a council meeting to consider the suggestion.

Acoustics.

We are asked if any reader will give his experience upon the acoustics of a building which is very defective for public speaking. The building is of the canteen class with double spanned wooden framed roofs with columns down the centre—size, about 100 feet wide; 200 feet long; height, 22 feet to wall plate; platform at one end and windows on either side of the building. Glazed partition at the back of the platform, and a corridor runs the length of the building on one side.

The Safety of St. Paul's.

The south-east pier in the transept of St. Paul's Cathedral is being surrounded with hoarding, and Canon Alexander states that the work of preservation will begin as soon as three statues at its base have been removed. The work already done had greatly added to the stability of the Cathedral. The south-west pier, which had been under repair for nearly four years, would, it was hoped, be relieved of its scaffolding in the next few weeks. Important documents recently brought to light showed that the Cathedral authorities had been faced by similar problems, in less critical form, at the end of the eighteenth century, and that the building had then been closed to the public for about a year and a-half.

Timber Stocks Taken Over.

In pursuance of the powers conferred upon them by the Defence of the Realm Regulations, the Board of Trade are taking possession of all stocks exceeding in the aggregate 5,000 super feet of mahogany in logs, flitches, planks, and boards, and all stocks exceeding in the aggregate 5,000 super feet of American walnut in logs, planks, and boards in the United Kingdom on August 24. Return forms and instructions as to how to fill them in have been sent to all the firms known to handle these timbers. Any firms holding stocks (amounting to more than 5,000 super feet) of either wood who have not received the necessary forms should apply to the Controller of Timber Supplies, Room 216, Caxton House, Westminster, S.W. 1.

Improving of Housing Conditions.

At a recent meeting of the Council of the North Wales Branch of the Welsh Housing and Development Association, held at the University College, Bangor, the Council appointed Messrs. G. A. Humphreys, F.R.I.B.A., and T. Taliesin Rees, F.R.I.B.A., Liverpool and Birkenhead, to join Mr. Ruthen and the secretary in the compilation of an exhaustive report on the slate quarry industry and the causes of depreciation, &c., in view of the fact that an important amount of building is likely to take place immediately after the war. The commission will endeavour to ascertain the causes of the prevailing depression and suggest methods of dealing with that and other troubles. A committee was also appointed to inquire into rural housing conditions in North Wales, to ascertain the number of houses in each parish which have fallen into bad repair in recent years, and to make recommendations to the council.

Richmond Hill View.

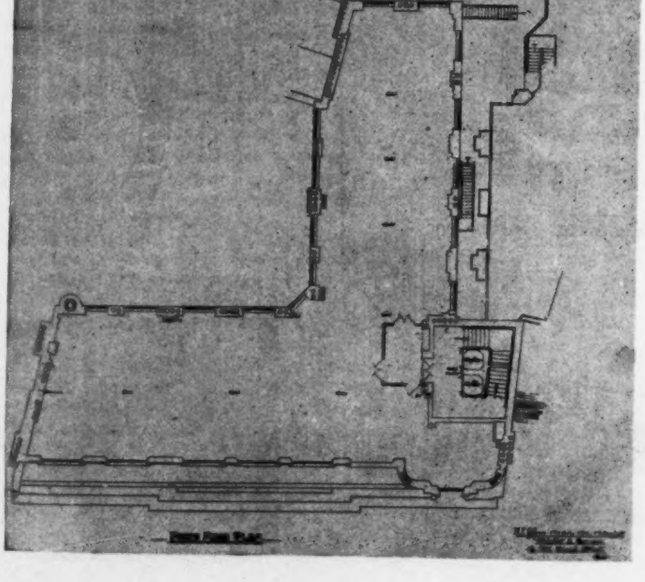
With regard to the proposal to build in the district of the Ham Common Urban District Council, the council, at a special meeting, passed a resolution to the effect that the proposed building would not only be a contravention of the council's town-planning scheme, but that it would be an irreparable blot on the amenities of a charming reach of the Thames, to preserve which large sums of money had been spent by public bodies. The council are seeking the assistance of the Surrey County Council and of neighbouring authorities to obtain an assurance that the proposed building shall only be of a temporary character, "so that the world-famed view from Richmond Hill shall not be permanently disfigured." Copies of the resolution are to be sent to the Surrey County Council, the Richmond Corporation, and the urban district councils of Teddington and Twickenham.—*Times.*

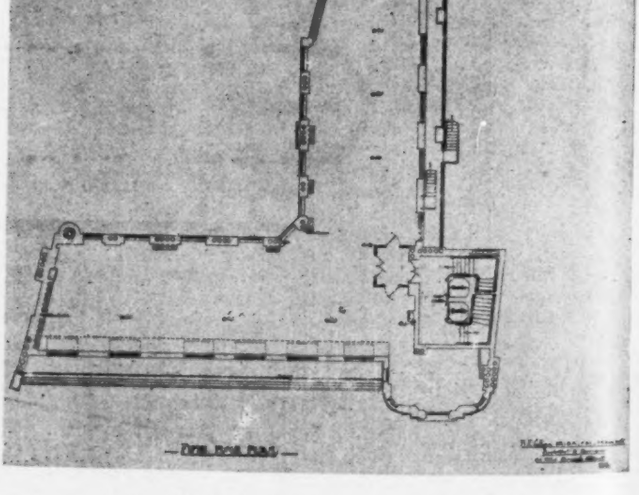
The R.I.B.A. and American Architects.

We are glad to hear that the Council of the R.I.B.A. have offered the hospitality of the Institute to American architects on service who find themselves on this side of the Atlantic and within convenient reach of London, and have extended to them certain privileges of membership, such as the use of the Institute premises and Library and attendance at meetings and other functions. They are also given the opportunity of borrowing books from the Loan Collection. It is hoped that members of the Institute coming in contact with American architects will make this offer known to them.

Plans for a National War Museum.

The scheme for the establishment of a National War Museum in London, on the lines suggested by Sir Alfred Mond, is now taking definite shape. It is intended that the museum should commemorate the naval and military effort of the Empire, and that it should include representative exhibits exemplifying the work of the Dominions and Indian contingents. The work undertaken in munition factories and by substitutes at home will find adequate representation. Among the proposals is that of a Hall of Honour, says the *Times*, rich in design, with an adjacent gallery devoted to the separate memorials of the Navy and the Army. The Hall of Honour might bear on its walls painted portraits, and on its floor pedestals carrying sculptured figures of men who have been specially distinguished by their war service. It is suggested that in the memorial gallery the name of every individual who fell in the war, or died of his wounds, should be inscribed on bronze plates framed with the arms of each regiment. The provision of two or more large glass-covered courts on the ground level to hold heavy exhibits, such as the great guns and the tanks, is also suggested. The Admiralty and the War Office have issued instructions that the museum shall have the first call of all war material and captured enemy trophies on the conclusion of the war. The several Government Departments concerned have issued similar instructions concerning all printed matter, posters, and proclamations, and all official photographs have been similarly earmarked for the museum. A War Library is being formed, which will include all the important publications of British, Ally, neutral, and enemy origin dealing with the war.





London and Lancashire Fire Insurance Co.'s Offices, Leadenhall-st.
FOURTH AND FIFTH FLOOR PLANS. (See page 126.)

CORRESPONDENCE.

The Evolution of a Design.

SIR,—Your remarks in "Notes," on "The Evolution of a Design," anent the features in the plan of the London County Hall, stir one's recollection of many such adaptations, some of which border on sheer injustice to the original inventor, who, at any rate, ought to be acknowledged if his ideas are 'borrowed."

I have vividly in mind the successful plans, selected in 1884, for the new Admiralty and War Office buildings, and it is curious how the leading feature of the plan, viz., the double corridor flanked by *long* courts with the latrines at the cross-ways, has cropped up again and again.

The new War Office and Brydon's Public Offices are samples of the adaptation referred to, and it would be interesting to the writer, never having seen—but heard of—the revised, and now executed, plan of the L.C.C. building, to know if this building also has reproduced the same type of plan.

"HONOUR TO WHOM HONOUR IS DUE"

Westminster.

Ecclesiastical Art.

SIR,—In a special article in the *Times* newspaper under the above caption, which appeared on the 11th inst., the anonymous writer states, *inter alia*, that "ecclesiastical Art is not free and therefore expresses nothing," and adds, "No art now is naturally Gothic." If this be so, it is the fault of architects and not of the style, for a building designed upon scientific principles (the *sine qua non* of true Gothic) cannot be unnatural at any period. We are dogmatically told by this writer that it is "not expressive of religious feeling." But is it not a fact that it appeals deeply even to the ordinary mind as expressing such feeling in the highest degree? Is not the man in the street impressed with the magnificent buildings bequeathed by our forefathers, though he knows little of the origin and growth of the style? Is it not the *tout ensemble* of Christian architecture and not mere details of tracery, cusp, crocket, &c., that makes the uninitiated feel a Gothic building is a church, and that it expresses not only the faith of our ancestors but that of the present day? The anonymous would-be reformer can hardly be acquainted with the best examples even of our modern churches when he pleads for the abandonment of the style.

Not only in Western Europe, where the style flourished more particularly, but in a new country like the United States of America, Gothic architecture stands now pre-eminently as the recognised expression of the religious feeling of the day. For example, the Cathedral of St. John the Divine in New York City, the most important of churches under construction. Although the Assessor selected a Byzantine design and work was commenced, the whole has been completely changed, and Mr. R. A. Cram (perhaps the leading exponent of Gothic on the Continent) has been appointed to complete the nave, transepts and towers in that style. His new churches in Fifth Avenue and Upper Broadway are delightful works in ecclesiastical art. The same intent is shown in the way Washington Cathedral designs were created. A leading English architect collaborated with a prominent American architect in the preparation, and but for his untimely death the former would have seen it through.

I agree with the dictum of one of our own leading architects: "What is wanted is not so much individuality, of which we seem to have enough and to spare, but *the discipline of the art by reference to standards established by the masters of the past.*"

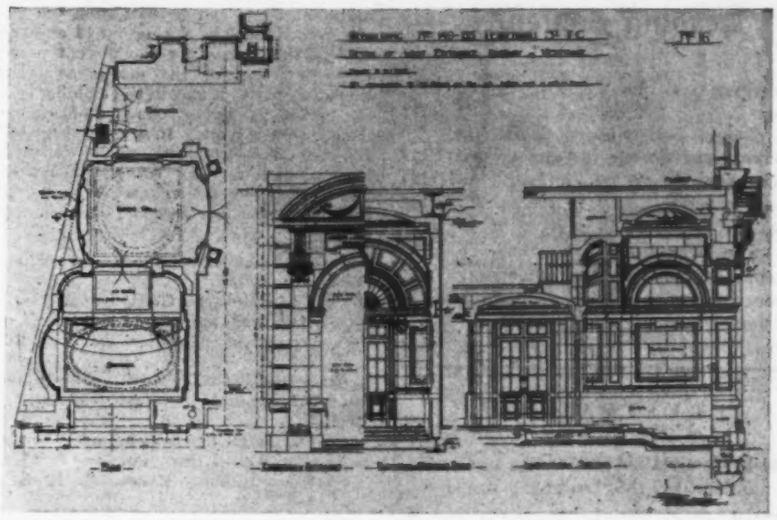
The further charge made by this critic, that "we get our church furniture and fittings from ready-made, commonplace art shops" may have had some truth in it sixty years ago, but not in the present day.

Now what does he suggest as a remedy for the condition he alleges as existing? Starting with a whitewashed room absolutely without ornament as a nucleus of religious expression, and evolving something—we know not what—as the climax and Ultima Thule of ecclesiastical art! The notion is unlikely to fascinate us, any more than the Cubist idea for pictorial art. It is not a new idea either. The Nonconformists tried it long ago. The Little Bethels and meeting conventicles at first satisfied them to worship in without any scruple about art. But as time went on they felt a growing want of something like the glorious buildings of the old Church they left, and to-day their churches vie with the Anglican in aspiration for Gothic.

The old taunts of the Classicists, "clever iorgeries," "Gothic Corpse" are scarcely whispered now, and I believe that if the rising generation of architects zealously couple individuality with discipline by reference to the standards established by the masters of the past we shall progress from good to the best that art can give to religion.

EDWARD W. HUDSON, A.R.I.B.A.

S. Hampstead, August 20.



MR. M. E. COLLINS, F.R.I.B.A., Architect. (See page 126.)

The Government and Publicity.

SIR,—I believe that very shortly the Government will be making a fresh appeal to the public for more money to carry on the war. I would suggest to those responsible for the Government publicity that the people who have the money to invest are the employers and employees. The money is being largely made in the Midlands, Yorkshire, and North of England manufacturing districts, and the best and surest way to get them interested is through their trade journals, produced for the purpose of promoting their interests and extending their trade.

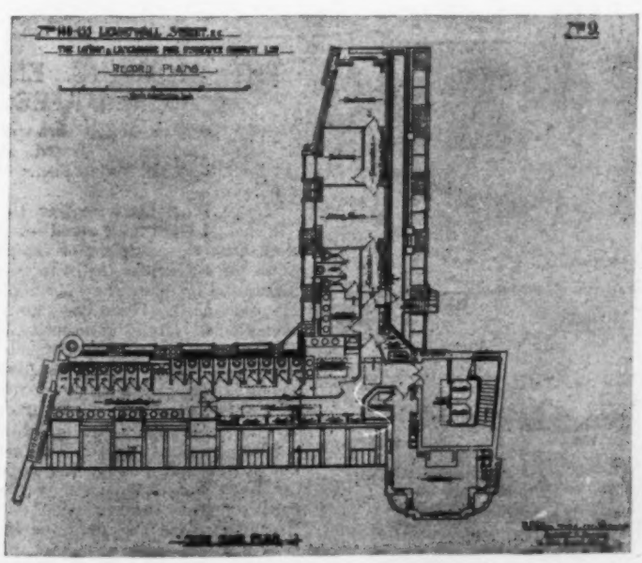
The *Builder, Engineer, Engineering Textile Recorder, Textile Mercury, Dyer and Calico Printer, Colliery Guardian, Ironmonger*, &c., to quote a few (according to Mitchell's Newspaper Press Directory there are over 500 trade papers published in this country), represent trades in which are invested many millions of capital.

The Trade and Technical Press represent the motive power of English industries, and is therefore one of the greatest assets the country possesses, and up to the present time has not been recognised by the Government, except to a small extent, when the Coal Control Committee made an announcement in a few trade papers.

The readers of these papers have the money. Next time the Government is asking for money, why not make their appeal to this great industrial class, the men who want a safe investment like the 5 per cent. Exchequer Bonds, or the War Loan, through the Trade Press, in addition to the daily Press?

WALTER JUDD,

[**** We referred to this matter in our "Note" on p. 78 of our issue for August 10.—ED.]



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ILLUSTRATIONS.

The London and Lancashire Fire Insurance Offices, 149-155, Leadenhall-street.

THE offices recently completed for the London and Lancashire Fire Insurance Company from designs by Mr. M. E. Collins, F.R.I.B.A., of 62, Old Broad-street, are an excellent example of skilful planning and arrangement on a difficult site, of which every foot has been utilized. We have never been over a building which is better lighted and ventilated in every part, and all requirements of a complicated and extensive business has received the fullest and most adequate study. Both the lower ground floor and basement are admirably lighted, directly from the street frontage, a system of direct windows looking out into areas, the upper part of which is protected by vertical sheets of thick plate glass forming a screen and protection above the pavement level, being employed in preference to depending mainly on pavement lights. A special feature and note of interest is supplied by the planning and arrangement of the premises provided for letting purposes at the eastern corner of the site, as the requirements of the Illinois Railway Company and other tenants have had to be specially considered without destroying the general character of the composition as a whole, while the fitting up of the separate offices has been carried out in accordance with the architect's designs. An ample entrance has been obtained at the western corner of the site, the irregular conformation of which has been skilfully treated on architectural lines. Our illustrations comprise plans of the principal floors, a section, and a general view of the front and a detailed view of the main entrance. We hope at a later date to give a view of the interior, of which we are unable to give an illustration at present. As can be seen from the view of the front, difficulties arising out of questions of ancient lights have for the present prevented the completion of the design as originally intended; but as it stands, the building is one of the best of the large insurance offices erected during recent years. It is interesting to note that the offices occupy the site of the yard of a former coaching inn. We give a list of the contractors and sub-contractors employed on the work, which has been well built and finished in every respect.

General contractors.—Messrs. Trollope and Colls & Sons, Ltd.

Stone carving.—Mr. G. Hawkings.

Drainage and sanitary work, including cold water supply tanks, &c.—Messrs. Davis, Bennett & Co.

Boilers and heating and warming systems, air washing and propelling.—Messrs. Davis, Bennett & Co.

Electric light installation, ozone generating machinery, &c.—Messrs. Pinching & Walton.

Steel construction.—Messrs. R. Moreland & Co.

Reinforced concrete floors and construction.—The Kleine Patent Fire Resisting Flooring Syndicate, Ltd.

Steel Windows.—W. James & Co., and the Crittal Manufacturing Co.

Marble work, including walls and staircases.—Messrs. Fenning & Co.

Tiling.—Messrs. W. B. Simpson & Sons.

Ornamental plaster ceilings, &c.—Messrs. C. Turpin & Co.

Seamless flooring.—Mr. Percy Day.

Escape stairs.—The Borough Engineering Co.

Electric lifts and elevators.—Messrs. Waygood & Co., Ltd.

Ornamental metal lift enclosures and rails to stairs.—Messrs. Hart, Son, Peard & Co.

Reinforced pavement lights and dome lights of patent crystal glass.—Messrs. J. A. King & Co.

Ornamental metal-work.—Messrs. Cashmore & Co.

Mantelpieces.—The Teale Fireplace Co., Ltd.

Locks and door furniture.—Messrs. J. Kaye & Sons.

Well-sinking and pumps.—Messrs. A. Williams & Co.

Despatch tubes.—Messrs. Lamson Pneumatic Tube Co., Ltd.

Strong room doors.—Messrs. Milners Safe Co., Ltd.

Electric fittings.—Messrs. Strode & Co.

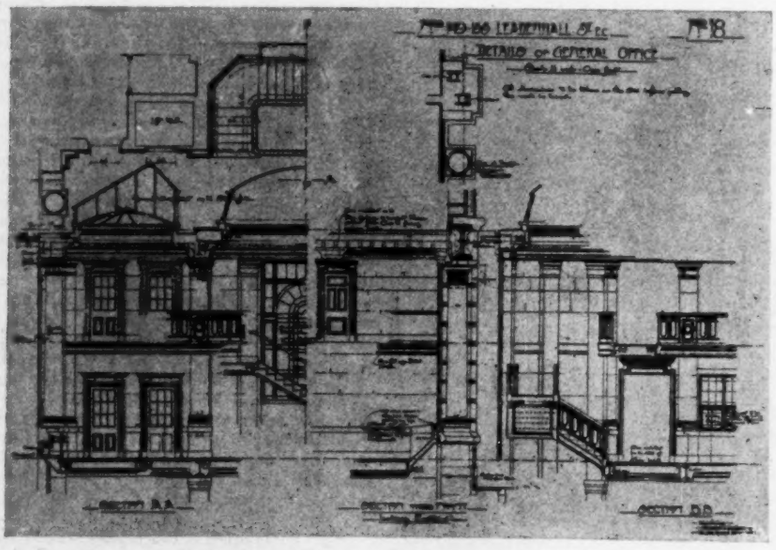
Clocks.—The Standard Time Co., Ltd.

Desks and fittings.—Messrs. Minter & Co.

Steel shelving, &c.—Messrs. Lucy & Co., of Oxford.

Consulting engineers.—Messrs. Couzens & Brown.

Clerk of the Works.—Mr. W. Lake.



MR. M. E. COLLINS, F.R.I.B.A., Architect.

BOOK.

The Italian Orders of Architecture. By CHARLES GOURLAY, B.Sc. Glasgow University.

IN noticing this book a few weeks ago want of space prevented our alluding to some of the points which its author has made a special attempt to cope with. One of these is the time-honoured custom of fixing the dimensions of mouldings by a scale of modules and minutes. Such a system conveys nothing that can be easily memorialised, while it obscures certain broad ratios which exist, and which it is all-important for the designer to know and remember.

The former method is that of the old Italian Masters and of William Chambers; the last was to a certain extent adopted by James Gibbs and forms the central idea of Mr. Gourlay's methods as shown in the present book.

Thus in dealing with the entablatures of the orders the author says:—

> The total height of the entablatures in all the orders except the Doric is divided into 10 equal parts, of which three are given to the architrave, three to the frieze, and four to the cornice, while in the Doric the over-all height is divided into eight equal parts, of which two are given to the architrave, three to the frieze, and three to the cornice.

In a similar manner, the height of the column being assumed, it is divided into seven equal parts for the Tuscan, eight for the Doric, nine for the Ionic and ten for the Corinthian or Composite, and in each case the dimension is that of the lower part of the column to be used. The entablature is taken in the plates given as being one-fourth the height of the column. The same simple system of ratios is kept up through out the book, so that a student may have at his command simple and easily remembered rules to replace the cumbersome minutæ of the earlier works.

An effort has been made to modify the most generally accepted features of the Italian orders in order to enable students and decorators to set out their designs readily and quickly, while the information given as to spacing of balusters and pedestals and arches is the result of a careful analysis of the practice of the Italian Masters of the Renaissance. The work will be specially useful to the large class of decorators who, while carrying out much work involving the use of architectural detail, have not, as a rule, the advantage given by a prolonged period of study of architectural literature. To the architectural student it will form a useful investigation in the broad principles underlying the design of the Italian Renaissance, which can be supplemented by full studies of more advanced and detailed works, and of actual buildings.

THE HOUSING ENQUIRY COMMITTEE.

In continuation of his correspondence with the Local Government Board, Mr. Mark H. Judge wrote to Mr. Hayes Fisher on August 25, as follows:—

"DEAR SIR,—Since writing to you on the 17th inst., I have been asked whether I do not think that the addition of representatives of municipal authorities ought to be added to the Committee on Housing. My reply is that, in my opinion, the Committee would be greatly strengthened if the Association of Municipal Corporations, the County Councils Association, the Urban District Councils Association, and any other corporate body representing municipal authorities, rural as well as urban, were each invited to nominate a member of the committee.

"The proper function of municipal authorities in this matter is, not the work of providing dwellings, but to supervise, to co-ordinate, to register. Any enquiry which does not deal thoroughly with the questions of supervision, co-ordination, and registration will be far from complete, and I trust you will make such additions to the Committee as will enable it to deal with these very important matters."

Nos 140-155 LEADENHALL STREET, E.C.

THE LONDON & LANCASHIRE FIRE INSURANCE COMPANY LTD

RECORD PLANS

No 2.

BASEMENT PLAN

Nos 140 155 LEADENHALL STREET, E.C.

THE LONDON & LANCASHIRE FIRE INSURANCE COMPANY LTD

RECORD PLANS

No 1.

SUB-BASEMENT PLAN

LONDON & LANCASHIRE FIRE INSURANCE COMPANY'S OFFICES, LEADENHALL STREET, E.C.

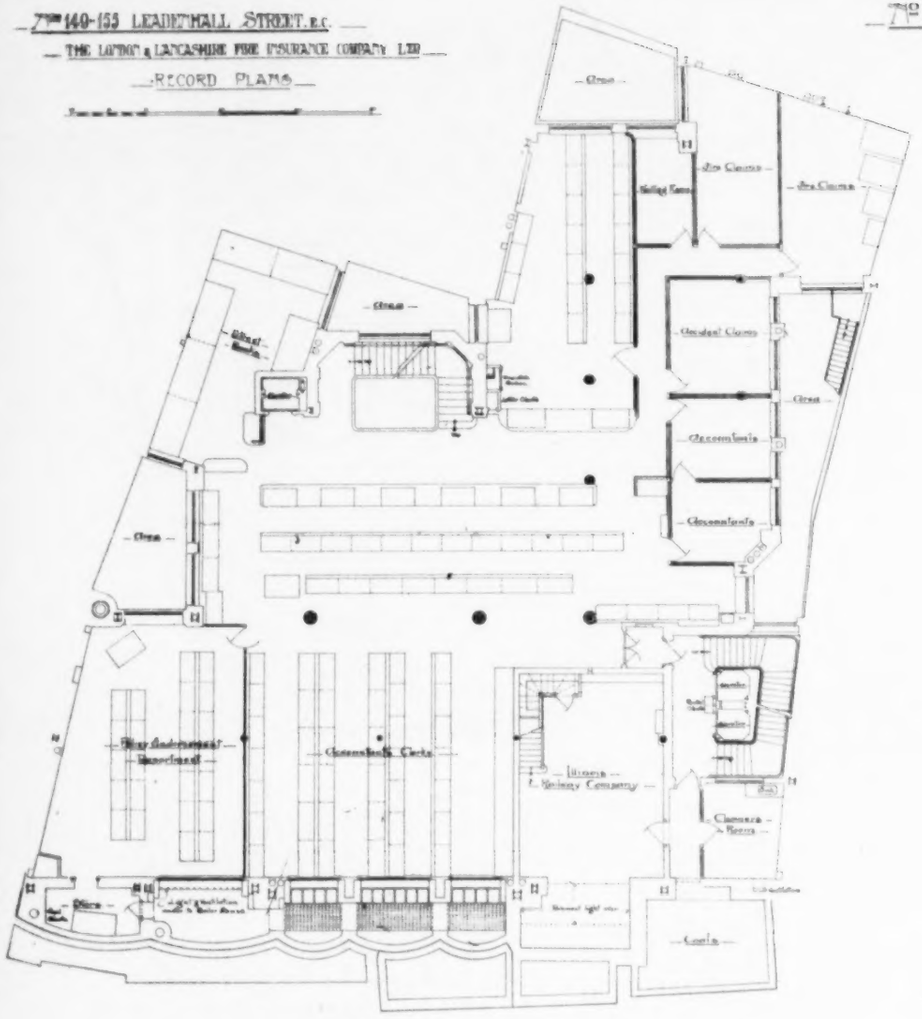
MR. M. E. COLLINS, F.R.I.B.A., ARCHITECT.

No. 3.

7 to 140-155 LEADENHALL STREET, E.C.

THE LONDON & LANCASHIRE FIRE INSURANCE COMPANY LTD

RECORD PLANS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THE LONDON AND LANCASHIRE FIRE INSURANCE COMPANY'S OFFICE, LEADENHALL STREET: VIEW OF ENTRANCE.
MR. M. E. COLLINS, F.R.I.B.A., ARCHITECT.

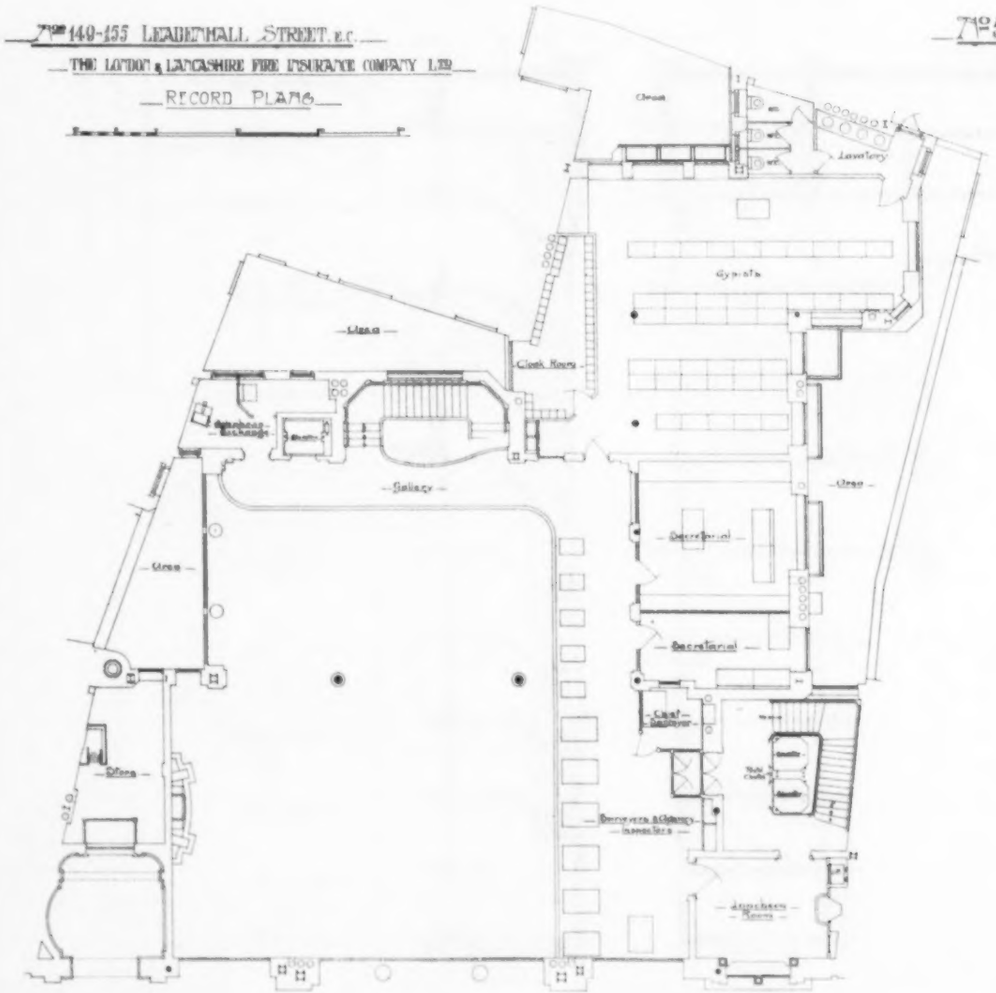
THE LONDON AND LANCASHIRE FIRE INSURANCE COMPANY'S OFFICE, LEADENHALL STREET: GENERAL VIEW.
MR. M. E. COLLINS, F.R.I.B.A., ARCHITECT.

No. 140-155 LEADENHALL STREET, E.C.

THE LONDON & LANCASHIRE FIRE INSURANCE COMPANY LTD

RECORD PLANS

No. 5.



MEZZANINE PLAN.

No. 140-155 LEADENHALL STREET, E.C.

THE LONDON & LANCASHIRE FIRE INSURANCE COMPANY LTD

RECORD PLANS

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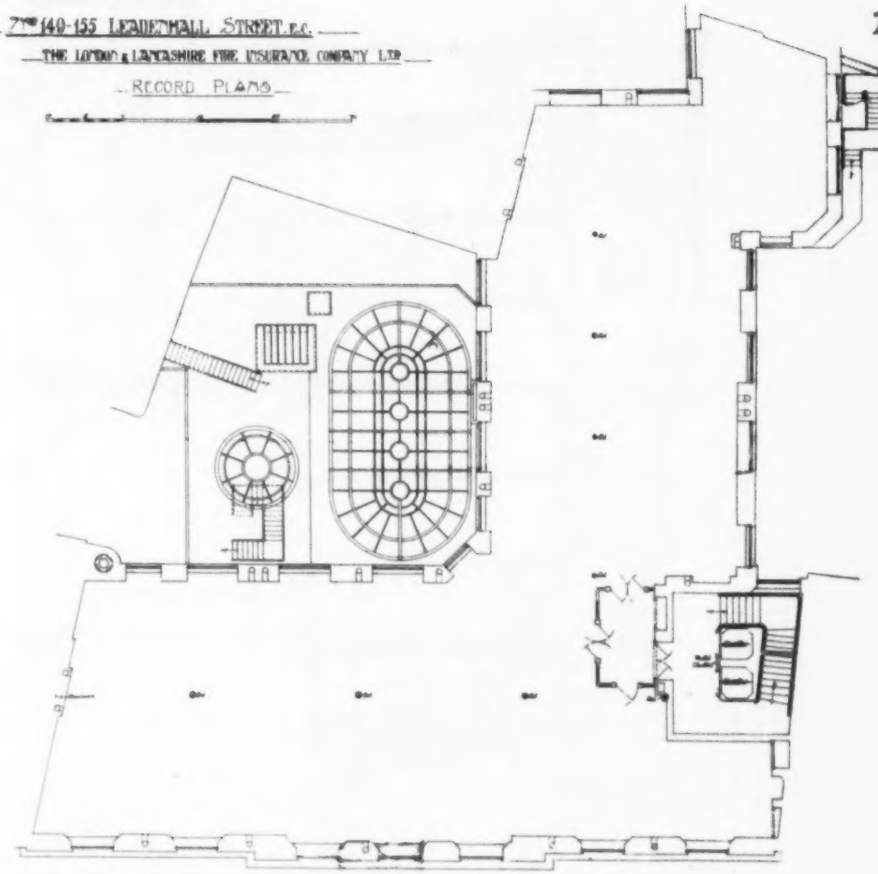
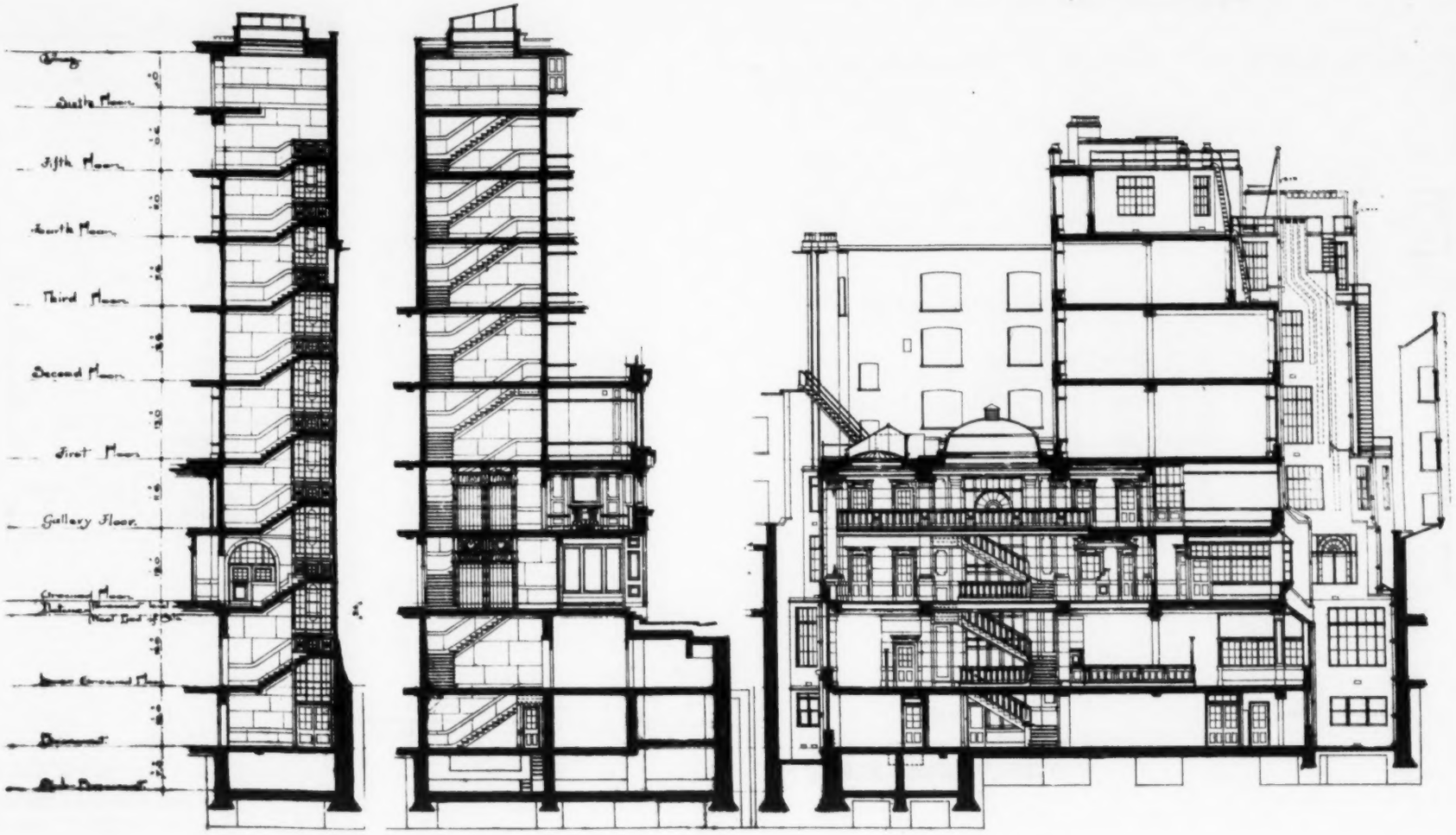


FIRST, SECOND AND THIRD FLOORS PLAN.

LONDON & LANCASHIRE FIRE INSURANCE COMPANY'S OFFICES, LEADENHALL STREET, E.C.

MR. M. E. COLLINS, F.R.I.B.A., ARCHITECT.

REBUILDING Nos 149-155 LEADENHALL St E.C.



SECTION C.D. SECTION E.F. SECTION A.B.

LONDON & LANCASHIRE FIRE INSURANCE COMPANY'S OFFICES, LEADENHALL STREET, E.C.

MR. M. E. COLLINS, F.R.I.B.A., ARCHITECT.

THE BUILDER, AUGUST 31, 1917.

THE CONSTRUCTION OF POLISH BUILDINGS.

POLAND having been for over a century divided into three separate parts, under different Governments, architecture and building activities in that country have naturally been affected by different influences. The economic conditions, building regulations—or by-laws—and prevailing taste of the ruling State have all been reflected to some extent by the buildings of the separate territories.

In the Kingdom of Poland, with which alone it is here proposed to deal, the appearance of buildings other than Government structures has, however, not been influenced by Russia, the architecture of that country not being such as could appeal to the Western tastes of the Poles. As Russia, besides, possessed no good schools of architecture, Polish students frequently supplemented their knowledge, and completed their training, by a course of studies abroad. The architecture of the kingdom, therefore, shows Italian, French and German influences. Up to the third quarter of the nineteenth century they were principally Italian and French, and the country possesses some charming buildings dating from the earlier part of the last century. The Warsaw boom period of the 'nineties, when building activities were carried on in an unprecedented wholesale manner, has however left nothing worthy of note.

Of recent years closer relations between the separate provinces have been established, and the study of national characteristics, as expressed in the ancient monuments of the country, fostered, with the result that the architecture of the divided territories has become more co-ordinated, and begun to develop a distinctive national character.

The Kingdom of Poland, or Russian portion of the ethnographically Polish territories, occupies roughly half their area with about half of their total population. To the architect and builder this territory is of additional interest on account of the great building activity which will undoubtedly set in there shortly after the restoration of peace.

The kingdom has been more completely laid waste by the war than any other country; for not only have its towns and villages suffered severely from the effects of military operations, as is the case in the districts west of the Vistula, but they have, in those east of that river, been systematically and thoroughly demolished by order of the Russian military authorities. And even had this not been the case, the restoration of a national Government would have resulted in the erection of a great number of new buildings, the want of some of them, especially schools, having already been most painfully felt for a long time past.

The building regulations in force in Poland before the war were those enacted by the Ministry of Internal Affairs for the provincial towns of Russia, and were in many respects totally unsuited to Polish conditions. One of these regulations, decreeing the complete suspension of building operations during the winter months, may be necessary under the rigorous climatic conditions prevailing in Russia, but was quite unjustifiable in Poland, where it only imposed unnecessary hardships on the building trades and building owners. Another, prohibiting the rendering of buildings to be carried out sooner than in the year following that in which they had been roofed in, was equally nonsensical. Well-reasoned protests made to the authorities in Petrograd by the architects and building contractors of the kingdom were, however, unsuccessful.

In the Russian towns not possessing municipal self-administration all proposed building operations had to be sanctioned by the local technical committee—a branch of the technical department of the Ministry of Internal Affairs—to which detailed plans of all proposed new buildings, or alterations to existing ones, had to be submitted; and this rule applied also to the Polish towns. Of recent years, however, a proposal was brought before the Duma to extend to a few of them the privilege of self-administration enjoyed by the larger towns in Russia, which includes the supervision of building operations by a municipal technical committee and the enjoyment of special building by-laws.

In view of this a committee, of which the writer was a member, was formed by the Warsaw Architects' Circle to elaborate a proposal for a set of up-to-date building regulations suited to Polish conditions. The committee secured copies of the by-laws in force in the principal cities and towns of Europe and America, and its scheme was very nearly completed at the time war broke out. No doubt the committee's proposals will be to a large extent, if not in their entirety, adopted by the new authorities by which the future independent Polish State will be governed.

The Russian authorities until recently demanded that the height of buildings in towns should not exceed the width of the street in which they were situated; but some years ago it was found that this rule applied only to a few of the principal cities in Russia. The consequence was that the prices of building sites in Warsaw constantly increased, and buildings grew ever higher, until, shortly before the war, it was unprofitable to erect blocks of flats of a lesser height than six stories above the ground floor, and a few of the latest buildings comprised even more.

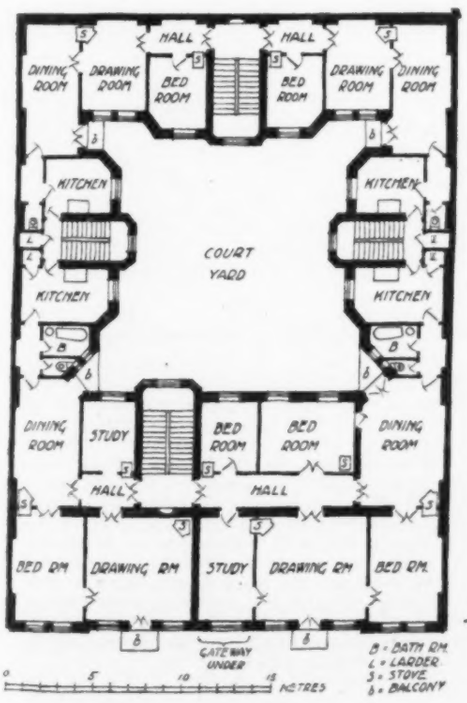
The rise to such exorbitant heights of the price of building sites was made possible by the great demand for dwellings within the city boundaries, caused by the absence of such amenities as drainage, water and gas supply and tramways, or other suitable means of communication, in the areas situated outside those boundaries. Attempts had been made at various times to entice the inhabitants of Warsaw away from the town, but they were not successful.

In this respect things have completely changed since last year, when the municipal boundaries were greatly extended, large new areas being brought within their limits; and, after the war, under an administration having the welfare of the city and its inhabitants at heart, great developments are certain to take place. Not the least important of these will be the creation of a series of garden suburbs, forming part of a scheme for the improvement of Warsaw which had been under consideration for some time before the war.

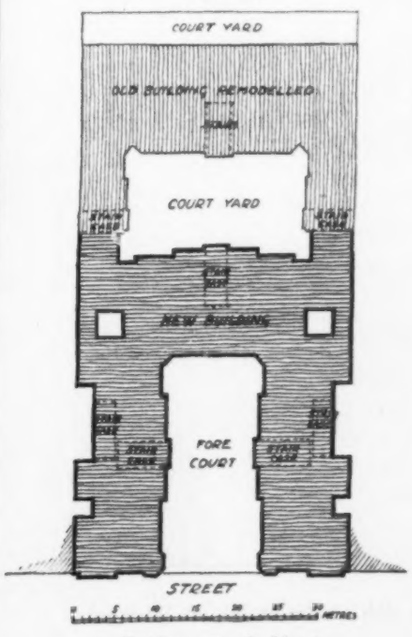
One of the Russian building regulations decreed that courtyards should not measure less than 35 ft. by 42 ft., except in the case of exceptionally small sites, and this resulted in the universal adoption of a stereotyped plan. As no restrictions were provided regarding the height of those parts of buildings facing these courts, the dwellings situated on the lower floors were generally quite inadequately supplied with light and air.

In the scheme for new by-laws it was proposed to regulate the height of buildings on the gabaret principle, that is to say, the outline of the buildings—both back and front—would have to fall within imaginary lines, drawn at a given

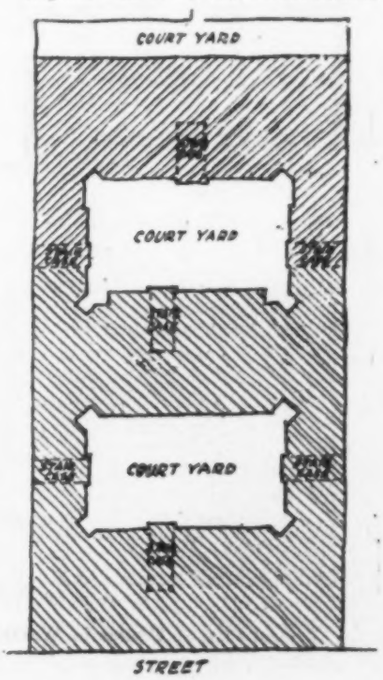
TYPICAL PLAN OF A WARSAW HOUSE OF THE BOOM PERIOD.



BLOCK PLAN OF Nº 105 ALEJA JEROZOLIMSKA WARSAW.



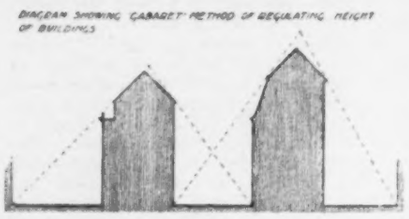
Original Plan of No. 105, Jerozolimska.



A. E. GURNEY, Architect.

LONDON & LANCASHIRE FIRE INSURANCE COMPANY'S OFFICES, LEADENHALL STREET, E.C.
MR. M. E. COLLINS, F.R.I.B.A., ARCHITECT.

angle from the base of buildings on the opposite side of the open space they adjoined. For this



purpose it was proposed to divide the towns into several areas (business areas, containing almost exclusively warehouses, shops, and offices; semi-residential, with shops having dwellings above them; residential, and factory areas) and each area was to have its own gabaret. This system obviates the necessity for the highly involved phraseology, concerning the heights of buildings, to be met with in many by-laws, and has already been tried with highly satisfactory results elsewhere.

The Committee's proposals also recommend the adoption of the Swiss method of erecting posts at the corners of intended buildings indicating their height and the size of cornices or other projections.

In the country it was formerly not necessary to obtain the sanction of any authority for building operations, every landowner or peasant being allowed to build where and as he pleased on his own land, but the scheme for the new by-laws proposes greatly to restrict this dangerous liberty.

As the Russian building regulations imposed no restrictions whatever on the taste, or lack of it, of the individual architect or building owner, the streets of the Polish towns, especially Warsaw and Lodz, were becoming a hotch-potch of the most incongruous elevations. To make this impossible in the future, it was proposed, in the new by-laws, to give the authorities the power to reject proposed elevations. In this they were, however, not to be allowed to use their own discretion, but to be guided by the advice of one of the societies whose members consist principally of architects and artists, or a special committee elected by those societies.

The cost of buildings is considerably higher in Poland than in this country, and that is due partly to the higher price of most building materials, and partly to the more costly methods of construction. The first factor was largely the result of artificial conditions and the lack of facilities for transport, as the country possesses large quantities of the substances required in the manufacture of most building materials. Clay suitable for all purposes is found in almost every part of Poland; the deposits of iron ore are very great; zinc, lead and copper abound; and there are lime and sandstone, and even marble quarries. The latter material is not, however, of sufficient artistic value to allow of its being extensively used.

The subsoil is generally good in Poland for building purposes, consisting mostly of clay or good firm sand. It is, therefore, in most cases, unnecessary to provide foundations of an unusual type, and they consist mostly of three or four layers of bricks in cement mortar.

Walls of town houses are constructed almost exclusively of bricks, and according to the Russian regulations they had to be at least two bricks, or twenty-two inches, thick. This thickness is, however, quite unnecessary—sixteen inches, or brick-and-a-half, with thickenings at exposed angles, being quite sufficient to withstand atmospheric influences in Poland.

The floors of the large town houses have, of recent years, been mostly constructed of fire-proof materials, modifications of the Kleine system being the most popular form of construction. Reinforced concrete has been very widely employed in the construction of warehouses and public buildings, where projecting beams were not objectionable or could be made to serve decorative purposes; but there were reasons against its general adoption for the floors of dwelling-houses. Firstly, it was difficult, the material being a good sound-conductor, to guard against the transmission of noise; and, secondly, a flat under surface being required, ferro-concrete could not compete with the more popular construction in price, as it necessitated a double ceiling.

The cost of reinforced concrete was much higher in Poland than in other countries, in consequence of the high price, artificially maintained, of its component materials.

As a roof covering, zinc or galvanised sheet-iron has been most widely used for low-pitched roofs, or where the surface was not visible; whilst, for high-pitched, visible surfaces, tiles of various descriptions have lately been generally employed. For buildings in rural districts, with the exception of peasant houses, the latter material has of recent years been most widely used.

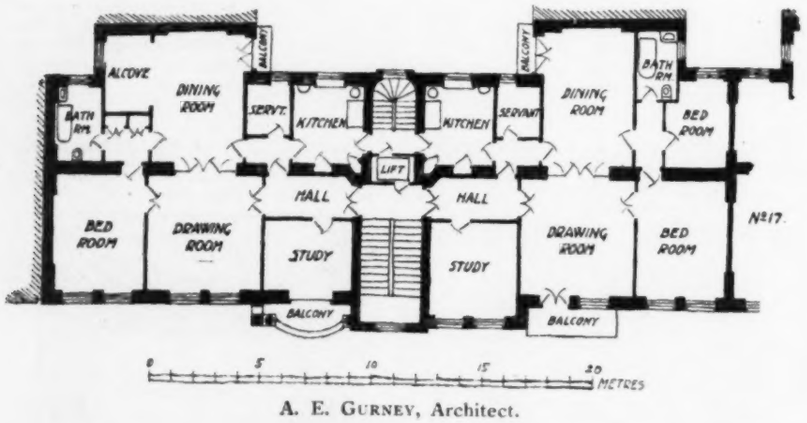
Double windows are provided in Poland in all buildings intended for habitation, and the floors of all the rooms in better-class dwellings consist of more or less expensive parquet. Some of the joinery turned out is of excellent quality.

The buildings of recent date are well supplied with all modern conveniences, lifts are to be found in all the larger town houses, and these buildings are now generally heated on the central low-pressure hot water system. Until recently the houses were heated by means of large stoves, formed of tiles; and in the country and provincial towns this method is still most widely adopted.

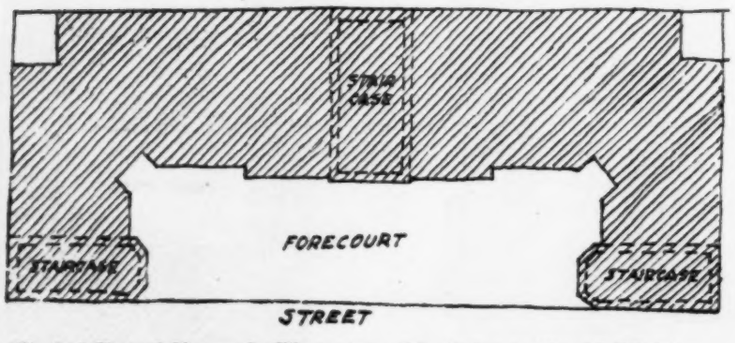
Internal decorations have always presented some difficulty, owing to the almost prohibitive prices—due to high freights and exorbitant customs duties—of such materials as decorative marbles, tiles, and timbers, which had to be obtained from abroad. The architect had, therefore, mostly to content himself with such effects as could be obtained by the use of home-grown materials.

ARTHUR E. GURNEY.

PLAN OF Nº15 WIELKA ST., WARSAW.



A. E. GURNEY, Architect.



Typical Plan of Houses in Warsaw on sites similar to No. 15 Wielka-st.

MEMORIALS.

The little lozenge panel surrounded by decorative ribbon is suggestive of an endless field for pleasing design from very simple *motifs*.

Competition for School, Uruguay.

The *Diario Oficial* (Montevido) notifies that a competition of plans for the construction of school buildings at Union (Department of Montevideo) will take place in October. Projects will be received at the "Secretaria del Ministerio de Instruccion Publica," Montevideo, up to October 15. Premiums of 1,000 pesos, 500 pesos, and 250 pesos are offered for the best projects submitted. The maximum cost of the construction of the buildings is put at 150,000 pesos. Particulars (in Spanish) as to the buildings and the plans required may be consulted by British firms interested at the Department of Commercial Intelligence, 73, Basinghall-street, London, E.C. 2. A peso is approximately 4s. 6d. at present exchange.

THE BUILDING TRADE.

OPEN-AIR SCHOOLS.

ONE of our American contemporaries illustrates a number of the open-air schools recently erected in California which follow closely on the lines of those with which Mr. Widdows has made us familiar, and are known as the "Derbyshire" type. We are sure that wherever the conditions admit of one-storied schools, the type introduced will be more and more frequently followed in the coming years, as it represents the most perfect and, at the same time, simple application of means to an end yet thought out.

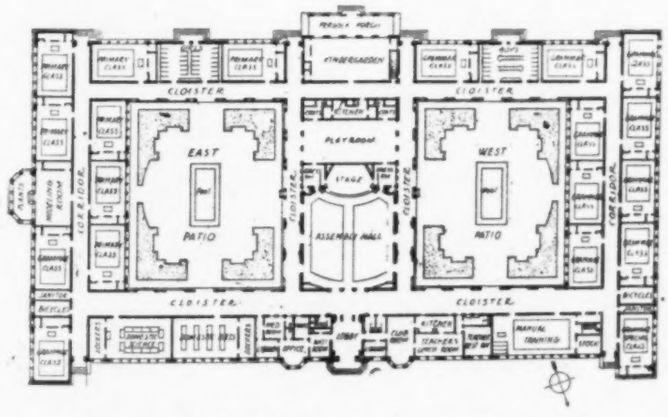
The hygienic advantages of ample ventilation have been the cause of almost every change in hospital and in school construction, and the permanence of the open-air school seems to be assured because it is clearly the furthest and fullest application of the principle to the building of schools; it is the termination and limit of the gradual changes and improvements which have taken place during the last fifty years, and such changes as may still take place are not likely to materially affect any important factor. Architects must welcome a type which replaces the corridor with arcaded or columned verandahs, which solves the difficulty of lighting wide rooms by admitting light on both sides, while the resulting courtyards become features of a great architectural value, however simply treated and sparingly detailed. The four plans we illustrate are all good, especially that of the Garfield Intermediate School, at Berkeley. The grammar school for Crystal School District, Suisun, is a well thought out and simple school on less ambitious lines, while in the Emerson School at Oakland we have a more extensive group of buildings of the same nature.

The problem of the future will be to devise the best two- or three-storied schools which can be carried out, approximating as nearly as possible to the type which gives such excellent results in the one-storied school, and it is this problem which will be most difficult to solve in London and other crowded cities. The central hall type has been developed as far as it can be, and we have in it a plan in which the school buildings cover the smallest possible area, and in which waste is cut down to a minimum; but with all these advantages the central hall plan does not fulfil either the newest requirements of hygienic experts in school building nor those of the teaching profession. Both authorities, in fact, want modifications which involve more cost, both in actual building and in site areas, and these improvements are bound to add to the cost of school buildings, and also to the trials of the economist. We do not think there is any sound reason for regarding the latest types of schools as temporary buildings which will become out of date because of the adoption of a higher standard of hygienic requirements, as they are to all intents and purposes cross-lighted and ventilated buildings of a hospital type; and if the unit of the class-room now fixed in London at forty can be regarded as a permanent one, there is no reason why our schools should ever be discarded for new ones; and if this be so, the permanent building is the cheaper in the end, and the saving by cheaper construction an expensive one in the end. The public have yet to learn that the cost of building is not fixed by architects but by the nature of the requirements they are called upon to meet, and that the intricate requirements of civilization cannot be met "cheaply," though they may be solved with greater or less economy.

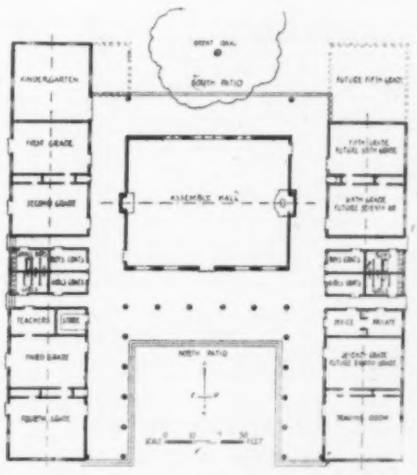
The architect and the constructor are too often unreasonably assailed by those who do not recognise that increased and improved accommodation cannot be provided when materials cost more and wages rise, except at an increased cost, especially when, as at present, the building trades steadily oppose any attempt to increase the rate of production, and, if anything, try to reduce it with the disregard of a mandarin for the inevitable result of their action.

PUBLIC WORKS IN BIRMINGHAM.

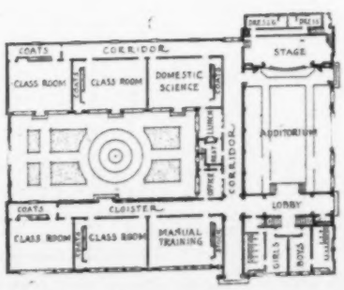
In his report on the work performed by the Public Works Department of the Birmingham Corporation during the year ended March 31 last, Mr. H. E. Stilgoe, the City Engineer and Surveyor, states that operations were greatly hindered as, owing to the war, the difficulty in obtaining materials became more pronounced than in the previous year, and there was a further depletion of the staff and the workmen. The tar treatment of roads was developing in two directions: the one by the extension of the system of tar-spraying the surface of macadam roads, and the other by laying tarred macadam as a wearing surface. The length of roads tar-sprayed during the year was 247 miles 4 furlongs 36 yards. As to surfacing with tarred macadam, lengths of the Bristol road had been reconstructed with that material; and machines had been purchased for the mixing of broken stone and slag with tar. Women to the number of about 90 had been employed in preparing the road surfaces for tar-spraying, and they had done the work satisfactorily. During the year building plans to the number of 616 were approved, as compared with 925 in the previous year. Under the Corporation Act 1903, 193 licences for temporary buildings were granted and 208 licences granted previously to April, 1916, were renewed, these being for various periods up to three years. The number of buildings completed in 1916–17 was 951, as compared with 1,382 in the previous year. Of the 951 buildings completed 387 were in respect of houses and shops, 21 business premises, 154 warehouses and shopping, one church, 220 miscellaneous, and 168 were alterations and additions. The future improvement of the main thoroughfares of the inner area of the city, and the question of providing greater facilities for vehicular and tramway traffic in the centre and means of through communication had received further consideration.



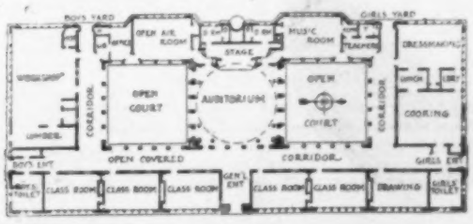
Emerson School, Oakland, Cal.: GROUND FLOOR PLAN.



Polytechnic Elementary School, Pasadena, Cal.:
GROUND FLOOR PLAN.
MESSRS. MYRON HUNT & ELMER GREY, Architects.



Grammar School, Crystal School District:
GROUND FLOOR PLAN.



Garfield Intermediate School, Berkeley, Cal.:
GROUND FLOOR PLAN.

Competitions, Contracts, &c.

For some contracts still open, but not included in this List, see previous issues. **Those with an asterisk (*) are advertised in this number.** Contracts, —; Tenders, —; Public Appointments, xvi; Auction Sales, xvi. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

*** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.

BUILDING AND PAINTING.

SEPTEMBER 1.—**Weymouth.**—ALTERATIONS.—Dorset C.C. E.C. invite tenders for alterations to the premises of the Technical School, Commercial-road, Weymouth. Plans, &c., at the Education Department, County Offices, Dorchester; at the Technical School, Weymouth; and at the Office of Mr. E. J. Brett (Architect to the County Education Committee), Wimborne.

FURNITURE, MATERIALS, etc.

SEPTEMBER 5.—**London.**—LIME AND CEMENT.—Supply to the Tottenham U.D.C. of lime and cement. Forms of Mr. Regd. C. Graves, Clerk and Solicitor of the Council, Town Hall, Tottenham.

SEPTEMBER 12.—**West Riding.**—PAINTS, &C.—Supply to the West Riding Lunatic Asylums at Menston, near Leeds, Storthes Hall, Kirkburton, near Huddersfield, and Wakefield; and the Wharncliffe War Hospital, Middlewood-road, Sheffield, of paints, varnishes, oils, &c., surveyors' materials, lead, tin, iron, &c. Forms of Mr. Harry Topham, Clerk to the Board, Asylums Board Office, Wakefield.

SEPTEMBER 13.—**Brentwood.**—PAINTS AND OILS, &C.—Supply to the Committee of Visitors of Brentwood Asylum, Brentwood, Essex, for the three months dated from the 1st October, 1917, of paints and oils, &c. Forms of Mr. W. H. Roscoe, Clerk of the Asylum, Brentwood.

SEPTEMBER 13.—**Colchester.**—CEMENT, &C.—Supply to the Committee of Visitors of Severalls Asylum, Colchester, for the three months dating from October 1, 1917, of cement, paints and oils, &c. Forms of Mr. R. Overend, Clerk of the Asylum, Severalls, Colchester.

SEPTEMBER 17.—**Bucklow.**—PAINTS, &C.—Supply to the Institution and Children's Homes during the next three or six months of paints, &c. Forms of Mr. George Leigh, Clerk to the Guardians, Union Officer, Knutsford.

ENGINEERING, IRON AND STEEL.

AUGUST 31.—**Manchester.**—HEATING APPARATUS.—The Parks and Cemeteries Committee invite tenders for heating apparatus at the Church of England and Roman Catholic chapels at the Southern Cemetery. Plans, &c., at the office of the City Architect, Town Hall. Deposit 10s. 6d.

SEPTEMBER 1.—**Manchester.**—CAST-IRON WATER MAINS, &C.—Supply to the Guardians of cast-iron water mains and fittings to their Institution at Tame-street, Ancoats, Manchester. Particulars of Mr. James Macdonald, Clerk to the Guardians, Union Offices, All Saints', Manchester.

ROAD, SANITARY, AND WATER WORKS.

SEPTEMBER 5.—**Tottenham.**—ROAD MATERIALS, &C.—Supply to the U.D.C. of road materials, &c. Forms from Mr. Reginald C. Graves, Clerk and Solicitor of the Council. Town Hall, Tottenham.

Public Appointment.

London.—Southwark Borough Council (Finance Committee require a Bookkeeper. Apply, Borough Treasurer, Southwark Town Hall, Walworth-road, S.E. 17.

Robbery at Petrograd Art Gallery.

Burglars, it is stated, have pillaged the great historical museum of the ex-Grand Duke Michael Nicolaievitch and carried off treasures and pictures valued at £500,000 at pre-war rates, including a Correggio valued at half-a-million roubles.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	11	11	11	11	11	10½	10	8	8	8
Accrington	11½	10½	11	9½	9	10	9½	7	7	7
Aitrinchan	11	1/1	1/-	9	9	1/1	11½	9	9	9
Ashton-under-Lyne	1/-	1/1	1/0½	1/-	1/-	1/-	11	8½	9	9½
Barnsley	10½	11½	10½	10½	9	1/-	9½	8½	8½	8½
Barrow-in-Furness	11½	11½	11½	11½	11½	11½	11	8	8½	8½
Barry	1/-	1/-	1/-	1/-	—	1/-	11	9	9	9
Bath	9	9	9	8½	8½	9	8	6½	6½	6½
Bedford	8	8	9	8½	8	9	6½	5½	5½	6
Birkenhead	1/-	1/-	1/1	1/1	1/-	1/-	11	9	9	9
Birmingham	1/0½§	1/0½§	1/0½§	1/0½§	1/0½§	1/0½§	11§	9½‡§	9½§	9½§
Bishop Auckland	9	9	10	9½	1/-	9	8	6½	6½	7½
Blackburn	11	11½	11½	11	10½	1/-	10½	7½	8	8
Blackpool	1/-	11	11	9½	8½	9½	10½	6	6	6
Bolton	11½	1/-	1/-	11½	11½	1/-	11½	7½	7½	7½
Bournemouth	8½	10	10	10	8½	10	9½	7½	7½	7½
Bradford	1/-	1/-	1/-	1/-	10†	10†	10½†	9½	9½	9½
Bridgwater	8½	8½	8½	8½	8½	8	7½	6	6	6
Brighton	9½	9½	9½	9½	—	9½	8	7	7	7
Bristol	1/-	1/-	1/-	1/-	—	1/-	11	9	9	9
Burnley	11	10½	11½	10½	9	10½	10½	7	7½	7½
Burton-on-Trent	9½	10½	10½	10	9	10½	9½	7½	7½	7½
Bury	1/-	1/-	11½	11	11	11½	10½	8	8½	8½
Cambridge	9½	9	9	9½	9½	9½	7½	6	6	6
Cardiff	1/-	1/-	1/-	1/-	1/-	1/-	11	9	9	9
Chatham	9½	10	10	9‡	9‡	10	8½	7	7	7
Chelmsford	8	7½	8½	9	—	7½	6½	5	5	6½
Cheltenham	9½	9½	9½	9½	—	9½	9½	6½*	6½*	6½
Chester	10½	11	11	11	11	11	10	6½	7½	7½
Chesterfield	9	10½	10	8	9	8½	8½	5½	5½	5½
Colchester	8	8½	8½	9	8	9	6	5½	5½	5½
Coventry	1/0½	1/0½	1/0½	1/0½	1/0½	1/0½	11½	10	10	10½
Crewe	9	9½	9	10½	10	9½	10	7	7	7½
Darlington	11½	11½	11½	11½	10	9½	9	8½	8½	8½
Derby	11	11	11	11	11	10½	9½	8	8	8½
Doncaster	9½	10½	10½	9½	9½	9	8	6½	6½	7½
Dudley	9½	11	11	10	10	9½	8½	8	8	8½
Durham	9½	9½	9½	9½	10	9	8½	6½	6½	7
East Glam. and Mon. Valleys	10	10	10	10	—	—	9	7	7	7
Exeter	9½	9½	9½	9½	9½	9	8½	8	8	8
Folkestone	8½	9	9	9½	8½	9	8	7	7	7
Gloucester	8	9½	9½	8½	8½	9½	8½	7	7	7
Grantham	8	8	7½	7½–8	7½–8	8½	6½	5	5	5
Grays	—	11	11	—	—	11	9½	9	9	9
Grimsby	9	10	10½	9½	10	10	10	8	8	8
Great Yarmouth	8	8	8	—	8	8	6½	5	5	—
Halifax	11½	11½	11½	9	9	11	10	9½	9½	9½
Harrogate	10½	9½	11	9	8	10	9½	7½	7½	7½
Hartlepools	11½	1/-	1/-	1/-	1/-	10½	9	9	9	9½
Hastings	8½	8	8	8½	8	8	7	6½	5½	6½
Hereford	10	10	10	10	10	10	9	7½	7½	7½
Huddersfield	1/-	11	11½	9½	11	9	8½	9	9	9
Hull	11½	11½	11½	11½	11½	1/-	9	9½	9½	9½
Ipswich	9½	9½	9½	10	9½	10	8	7	7	7
Lancaster	10½	10½	10	10	9½	10	9	6	6½	7½
Leamington Spa	9	9½	9½	8½	9	9½	8½	6½	6½	6½
Leeds	1/0½	1/0½	1/-	11½	11½	1/-	10	9½	9½	10
Leicester	11½	11½	11½	11½	11	10½	9	9	9	9½
Lincoln	10½	9½	9½	9	8½	10½	8	6	7½	6½
Liverpool	1/1	1/1	1/1	1/0½	1/0½	1/-	11½	9	9	9
Llanelly	9½	9½	9½	8½	9	8½	8	5½	5½	5½
London	1/1½	1/1½	1/1½	1/1½	—	1/2	11	10	10	10
Loughborough	10	10	10½	10	10	10	9	8½	8½	9½
Luton	9½	10½	10½	8½	9	8½	9½	8½	8½	8½
Maidstone	10	10	10	10	10	10	9	7	7	7
Manchester	1/1	1/1	1/1	1/0½	11	1/1	11½	9	9	9
Mansfield	8½	11	10½	8½	—	10½	9	8	8	8
Merthyr Tydfil	11	11	11	11	11	11	10	8½	8½	8½
Middlesbrough	11½	1/-	1/-	1/-	1/-	10½	9	9	9	9½
Newcastle-on-Tyne	1/0½	1/0½	1/0½	1/0½	1/-	10½	11	9½	9½	9½
Newport, Mon.	11½	11½	11½	11½	11½	1/0½	10½	8½	8½	8½
Northampton	11	11	11	11	11	11	10	8½	8½	8
Norwich	8½	8½	8½	8½	8	8½	7½	6	6	10
Nottingham	1/-	1/-	1/-	11½	11½	1/1	11½	9½	9½	9
Oldham	1/-	1/-	1/1	11½	11	11½‖	11½	8½	8½	6½
Oxford	9½	9	9	9	9	9	8	6½	6½	8½
Plymouth	10*	10*	10*	10*	10*	10*	8½*	8½	8½	8
Pontypridd	11	11	11	11	11	11	10	8	8	8
Portsmouth	10½	10½	10½	10½	10½	9½	8½	8	8	8
Preston	10½	1/-	11	10½	10½	11	10½	7½	8	6½*
Reading	9	9½	9½	10½	—	9½	8½	6½*	6½*	9
Rochdale	11½	11½	11½	11½	10½	1/0½	11	8½	8½	7
Rochester	8	10	10	9	9	10	8½	7	7	9
Rugby	11	11	11	11½	1/-	11	10	8	8	8½
St. Albans	10	10	10	10	10	10	9	8	8	8
St. Helen's	1/-	1/-	1/-	1/-	1/-	11	10½	7	7½	7
Scarborough	9	9½	9	8½	8	9	8	7	7	9
Sheffield	10½	11½	1/-	9½	10½	1/-	10	9	9	6½
Shrewsbury	8½	9½	9½	9½	—	8½	7	6½	6½	8½
Southampton	11½	11½	11½	11½	11½	11½	10½	8½	8½	6
Southend-on-Sea	9	9	9	9	P'cework	9	7	6	6	7½
Southport	11½	11	11½	11	11	11	11	7	7½	9½
South Shields	1/0½	1/0½	1/0½	1/0½	1/-	10½*	11	9½	9½	9
Stockport	1/1	1/0½	1/0½	11½	10½	1/-	10½	8½	9	9½
Stockton-on-Tees	11½	1/-	1/-	1/-	1/-	10½	9	9	9	8½
Stoke-on-Trent	10	11½	11½	10	—	10½	10½	8½	8½	7
Stroud	9	9	9	9	9	9	8½	7	7	9
Sunderland	1/-	1/-	1/-	1/-	1/-	9½	11	9	9	9
Swansea	1/-	1/-	1/-	1/-	1/-	1/-	11½	9	9	5½
Taunton	8	8	8	8	—	8	7	5½	5½	8
Torquay	10	10	10	10	10	10	10	8	8	9
Wakefield	10	11	10½	9½	8½	10½	10	9	9	8½
Walsall	11½	11	11	11	11	11	9½	8½	8½	7½
Warrington	1/-	1/-	11½	1/-	1/-	11½	10½	7	7½	8
West Bromwich	11	11	10½	10½	—	10	9	8	8	9
Wigan	11½	1/-	11½	11	10½	11½	10½	9	9	6
Windsor	9	9	9	10	—	9	—	6	6	9
Wolverhampton	1/-	1/-	1/-	11	11	1/-	10½	9	9	7½
Worcester	9	9½	9½	9½	9½	9½	8	7½	7½	8½
York	9½	9½	9½	10½	10	10½	8½	8½	8½	

The Masons' rate given is for bankers; fixers usually ½d. per hour extra.

* War bonus of 2s. per week granted. † War bonus of 3s. per week granted. ‡ War bonus of 2s. 6d. per week granted. ‖ War bonus of 6s. per week granted. § 1d. per hour extra for men engaged on munition work.

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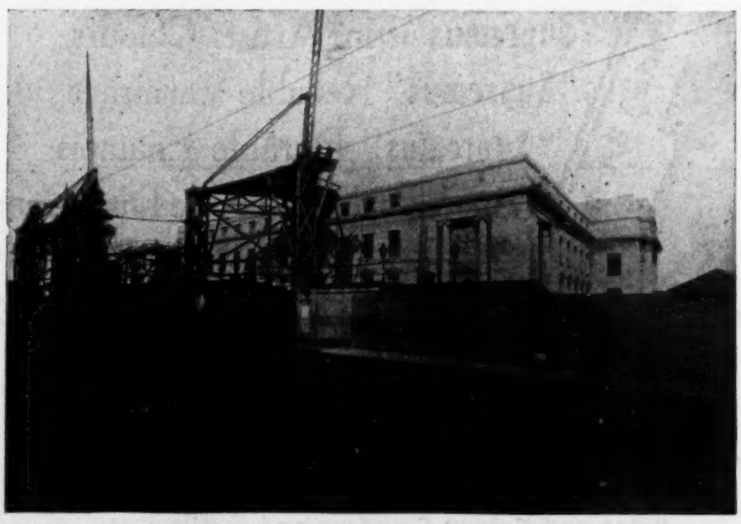


UNIVERSITY COLLEGE, DUBLIN.—Architect, Mr. R. M. BUTLER, F.R.I.B.A. Dublin.
EXPANDED STEEL-CONCRETE FOUNDATIONS, FLOORS, ETC.—EXPANDED METAL LATHING AND PLASTER CEILINGS, ETC.

EXPANDED STEEL SHEETS FOR DIVISIONS, LOCKUPS, REMOVABLE FRAMED PANELS, Etc.
PROMPT DESPATCHES FROM LARGE STOCK

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

BELFORD.—The R.D.C. has approved plans for alteration and extensions to premises of Mr. J. Davidson, North Sunderland.

BRISTOL.—The Bristol Sanitary Committee have been considering the provision of better communication between Gatton-road and Fox-road, and the provision of a bridge across the stream, and they have decided to view the locality.

CANADA.—The following notes of industrial activities in Canada are taken from the *Canadian Engineer*, forwarded by the Office of H.M. Trade Commissioner in Canada:—Plans for the erection of a large coke-producing plant in Hamilton, Ontario, have been approved and work will be commenced almost immediately; an elevator company has been negotiating with the City Council of Moose Jaw, Saskatchewan, with a view to erecting there a 500,000 bushel elevator and modern grain "hospital" at a cost of about £157,000; a motor-car company is erecting at Windsor, Ontario, a factory which will have a floor area of 75,000 sq. ft., and will be constructed of reinforced concrete; a shipbuilding company is planning to spend about £26,000 on a new yard in Quebec.

GLASGOW.—In connection with the proposed erection of an exhibition building on Bunhouse ground, it is proposed that it be remitted to a sub-committee to consider plans for its construction and to advertise for offers.

ORRELL.—The Orrell U.D.C. has decided to inform the L.G.B. that about 100 new houses suitable for the working-class would be required at the termination of the war. The Council have also expressed their willingness to prepare a scheme for supplying 75 houses.

OSSETT.—The T.C. has approved a plan of a porch at Paleside, for Mr. A. Shaw. A plan of scullery and bedroom at Walton-place, Flushdyke, for Miss B. Bickle has been before the Council.

PORT GLASGOW.—The work in connection with the large building scheme in the east end of Port Glasgow has been entrusted to four Glasgow builders. The ground to be built upon embraces Clune Park football field and lands adjoining east and west. It is expected that the new buildings will provide accommodation for 4,000 persons, and the cost will be about £200,000. The scheme is being undertaken by Messrs. James & Henry Lithgow.

RAWMARSH.—The Housing Committee of the U.D.C. has replied to the questions of the L.G.B. relative to housing requirements, as follows:—Required now, 50 six-roomed houses; at the close of the war 150 six-roomed houses, 50 five-roomed houses, and 50 four-roomed houses.

THE HOUSING SCHEME.

In our last issue we published a letter sent by Mr. M. H. Baillie Scott to the *Times* in reference to the proposed housing scheme. The following is a further letter from Mr. Baillie Scott in reply to another correspondent:—

"SIR,—May I suggest that if your correspondent, Mr. J. E. Morris, refers to my previous letter on the above subject he will find I am quite innocent of the terrible suggestion—that the new cottages should be built throughout the country of one building material and from one design. I merely said: 'Under modern conditions it seems inevitable to admit the economic advantages of standardization and repetition of plans.' The extent to which this principle of standardization should be applied is a separate question which would be governed by many factors. Aspect, prospect, local materials, the character and levels of the site—all these conditions would demand variation in plan. And the variety so obtained as the natural outcome of sensible planning would have the same secure basis on reality which makes the casual picturesqueness of our old villages so charming. It would be essentially different from what is now known as 'artistic' building, where variety and picturesqueness, instead of occurring naturally and reasonably, are consciously striven after, with such painful results in our modern suburbs."

* See also our list of Competitions, Contracts, &c., on page 130.

This little cottage was designed shortly before the war by Mr. RUPERT DAVISON, Architect.

NEW COMPANIES.

The particulars quoted below have been compiled by Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery Lane, W.C. 2, from the documents available at the Companies Registry:—

SUTTON & COMPANY (GUILDFORD) LTD. (148,225). Registered August 14. To acquire and take over as a going concern the business of timber merchants and importers. Nominal capital, £15,000, in 4,000 £1 Preference shares, 7,000 Preferred Ordinary shares, and 4,000 Deferred Ordinary shares each of £1.

NORTH LONDON ENGINEERING COMPANY, LTD. (148,232). 209, Cobbold-road, Willesden, N.W. Registered August 15. To carry on the business of motor van and carriage and motor engine manufacturers and carry on the business of mechanical engineers, &c. Nominal capital £5,000 in 3,750 10 per cent. £1 Cumulative Preference shares and 25,000 1s. Ordinary shares.

"ORO" LTD. (148241), 18, Fleet-street, London. Registered August 16. To carry on business of contractors for the building and erection of premises and buildings of any description. Nominal capital £8,050 in 8,000 £1 Preference shares and 1,000 1s. Ordinary shares.

Work at Isolation Hospital, Lee Mill.

Only one tender was received in response to an invitation from the Plympton St. Mary R.D.C. for offers for executing repairs and certain painting work at their Isolation Hospital, Lee Mill, near Ivybridge, Devon, and the Council has resolved that the work be carried out by direct labour.

GENERAL BUILDING NEWS.

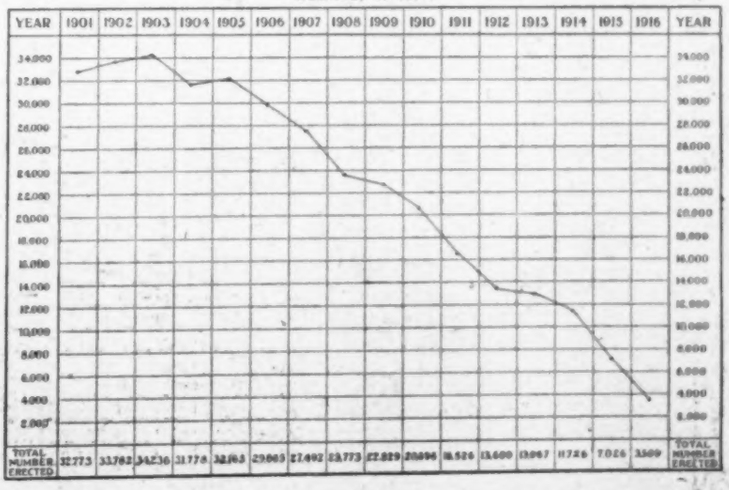
Extensions, Ashton Infirmary.

The Summers' Wing of the Ashton District Infirmary was opened recently. The new ward block has been erected on the west side of the existing buildings at a cost of £4,000. The buildings, which were designed by Messrs. W. H. George & Sons, of Ashton, are 197 feet long by 24 feet wide. There is a ward at each end, having accommodation for 14 beds, giving a total of 28 beds. In the centre of the block is a day room. There is a separate sisters' room, servery, bathroom, &c., to each ward, the whole being connected by a corridor to the entrances and day rooms. The extension scheme also includes a nurses' block in the rear of the Nurses' Home. It gives ten additional bedrooms for nurses, with lavatories and bath accommodation. Messrs. Thos. Dean & Co., Ltd., of Hurst, were the general contractors.

Port-Glasgow's Building Scheme.

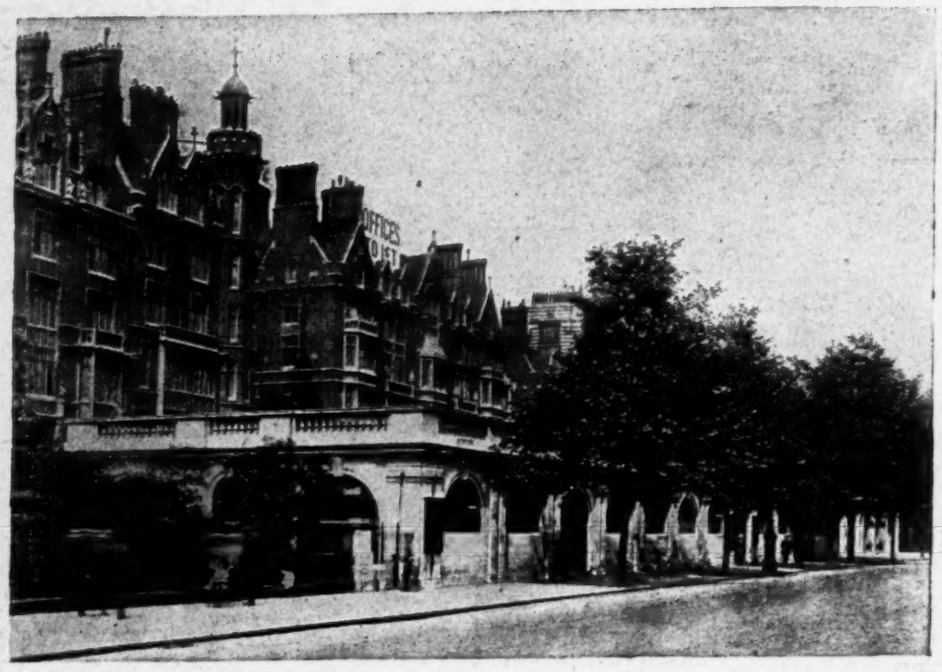
A beginning has been made with a large building scheme in the east-end of Port-Glasgow. The work has been entrusted to four Glasgow builders, and they have each started on separate sections. The ground to be built upon embraces Clune Park football field and lands adjoining east and west. It is expected that the new buildings will provide accommodation for 4,000 persons, and the cost is likely to be about £200,000. The scheme is being undertaken by Messrs. James & Henry Lithgow.

HOUSES ERECTED IN 40 LARGEST MUNICIPAL AREAS IN ENGLAND AND WALES
from 1901 to 1916.



Diagram, referred to in our leading article last week, showing houses erected in the 40 largest municipal areas 1901–16.

CONCRETE REINFORCEMENT



Temple Station, London, for Metropolitan District Railway. Architect: H. W. Ford, Esq., L.R.I.B.A.
Floors and roof reinforced with B.R.C. Fabric.

BECAUSE it is laid in large units, and because it contains no loose pieces, B.R.C. Fabric is the safest reinforcement to use for concrete floors, roofs, and other surfaces.

B.R.C. Fabric is a mesh of high grade steel wire; the wires are all spaced in the manufacture of the material, and they are immovably fixed in their relative positions. Thus the chance of misplacement or omission of reinforcement is reduced to the smallest possible dimensions when B.R.C. Fabric is used.

The British Reinforced Concrete Engineering Co., Ltd., Head Office: 1, Dickinson Street, Manchester Works: Trafford Park, Manchester

BRC Fabric

London: 36, Lime Street
Birmingham: 118, New St.
Liverpool: 36, Dale St.
Newcastle-on-Tyne: 2, St. Nicholas Buildings
Sheffield: 38, Church St.
Glasgow: 62, Robertson St.

B·R·C

PRICES CURRENT OF MATERIALS.

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1,000 Alongside, in River Thames.	£ s. d.
Best Stocks	2 10 0
Picked Stocks for Facings	3 5 0

Per 1000, Delivered at Railway Depot, London.	£ s. d.		£ s. d.
Flettons	1 18 0	Best Blue Pressed Staffordshire	5 15 0
Best Fareham Red	4 0 0	Do. Bullnose	6 0 0
Best Red Pressed Ruabon Facing	6 0 0	Best Stourbridge Fire bricks	9 5 0

Glazed Bricks—			
Best White, Ivory, and Salt Glazed Stretchers	14 17 6	D'ble Str'tch'rs	20 7 6
		D'ble Headers	17 7 6
		One Side and two Ends	21 7 6
Headers	14 7 6	Two Sides and one End	22 17 6
Quoins, Bullnose and 4½in. Flats	18 7 6	Splays and Squints	19 17 6

Glazed bricks priced at so much each, 25 per cent. advance on list.

Second Quality, £1 per 1,000 less than best.

	s. d.	
Thames Ballast	8 9	per yard, delivered.
Pit Sand	11 0	
Thames Sand	12 0	" " "
Best Washed Sand	12 0	" " "
¾ in. Shingle for Ferro-Concrete	11 6	" " "

Per ton, delivered.	£ s. d.		£ s. d.
Best Portland Cement	2 10 0	..	2 13 0

Do. £2 6s. alongside in 80-ton lots.
Ferrocrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 1 7 6 at rly. depot.
NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 1s. 3d. each and credited at 1s. each if returned in good condition within three months.
Grey Stone Lime ..... 47s. 6d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
Bath Stone—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
Portland Stone—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Westbourne Park, G.W.R., South Lambeth, G.W.R., or Nine Elms, or L. & S.W.R., per ft. cube	2 5½
Do. do. delivered on road waggons at Pimlico Wharf or Nine Elms Depot, per ft. cube	2 6½
White basebed, 2d. per ft. cube extra.	

Random Blocks—Per Ft. Cube, delivered at Rly. Dpot.	s. d.		s. d.
Ancaster in blocks	2 0	Closeburn Red Freestone	2 2
Beer in blocks	1 7½		
Grinshill in blocks	2 4	Red & White Mansfield random block	2 9
Darley Dale in blocks	2 5	Yellow Magnesian Limestone do. do	3 3

York Stone—*Robin Hood Quality.* Per Ft. Cube, Delivered at Railway Depot	s. d.
Scappled random blocks	3 4
Per Ft. Super. Delivered at Railway Depot.	
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 5
4 in. rubbed two sides, ditto	2 8
3 in. sawn two sides slabs (random sizes)	1 0½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 8½
1½ in. to 2 in. ditto, ditto	0 6½

Hard York— Per Ft. Cube, Delivered at Railway Depot.	
Scappled random blocks	3 0
Per Ft. Super., Delivered at Railway Depot.	
6 in. sawn two sides landing to sizes (under 40 ft. super.)	2 3
6 in. rubbed two sides ditto	2 7
3 in. sawn two sides slabs (random sizes)	1 0
2 in. self-faced random flags	0 5

TILES.

Per 1,000 f.o.r. London.	£ s. d.
Best machine-made tiles or hand-made sand-faced tiles from either Broseley or Staffordshire district	3 0 0
Ornamental ditto	3 2 6
Hip and valley tiles (per dozen)	0 6 0

SLATES.

Per 1,000 of 1,200 f.o.r. London.	£ s. d.
Best Blue Bangor Slates, 20 by 10	13 5 0
" " " 16 by 8	6 12 6
First quality " 20 by 10	12 15 0
" " 16 by 8	6 10 0
Best Blue Portmadoc 20 by 10	13 5 0
" " 16 by 8	6 12 6
First quality " 20 by 10	12 12 6
" " 16 by 8	6 7 6

WOOD.

Best Building Redwood. Imported sizes.
Deals: 4 in. by 12 in., 4 in. by 11 in., 3 in. by 11 in., 4 in. by 9 in., and 2 in. by 11 in.
3 in. by 9 in., 2½ in. by 9 in., and 2 in. by 9 in.

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn

WOOD (*Continued*).

Best Building Redwood.
Battens: 2 in., 2½ in., and 3 in. by 8 in.
2 in., 2½ in., and 3 in. by 7 in.
2 in., 2½ in., and 3 in. by 6 in.
Scantlings: 2 in. by 3 in., 2 in. by 3½ in., 2 in. by 4 in., 2 in. by 4½ in. ... 3 in. by 4 in., and 3 in. by 4½ in.
Boards: 1 in., 1¼ in., and 1½ in. by 6 in. and 7 in. ¾ in.
Seconds
Sawn pitch pine logs (about 35 cu. ft. average
Do. 6 in. to 10 in.

Best Pitch Pine Deals
Under 2 in. thick

Joiners' Wood

White Sea First Quality Red: 4 in. by 11 in... 3 in. by 11 in., and 2 in. by 11 in.
4 in. by 9 in.
3 in. by 9 in., and 2½ in. by 9 in.
8 in. by 11 in. boards
7 in. and 8 in. battens
7 in. and 8 in. boards
Archangel White Deals—
Best 3 in. by 9 in. and 10 in. and 11 in.
Seconds, do.
U.S. Battens
Prepared Floorings and Matchings. Seconds Swedish Red and equal—
1¼ in. by 6½ in. planed and shot
1¼ in. by 6½ in. planed and matched
1 in. by 6½ in. planed and shot
1 in. by 6½ in. planed and matched
¾ in. by 6½ in. planed, matched, and beaded, or V jointed
1 in. by 6½ in. do.
Columbian or Oregon Pine, best quality
Yellow Pine—First regular sizes
Oddments
Seconds, regular sizes
Oddments
Kauri Pine—Planks per ft. cube

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

Dry Wainscot Oak, per ft. super, as inch	0	1	6	..	0	1 6
¾ in. do. do.	0	0	10	..	0	1 2
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0	1	6	..	0	2 6
Cuba, Mahogany	0	1	6	..	0	2 6
Dry Walnut, American, per ft. super, as inch	0	1	6	..	0	2 6
French, "Italian," Walnut	0	1	6	..	0	2 6
Teak, per load (Rangoon or Moulmein)	30	0	0	..	40	0 0
Do. do. (Java)	30	0	0	..	40	0 0
American Whitewood planks, per ft. cube	0	8	6	..	0	10 0
Glue, per cwt.	5	0	0	..	5	5 0

METALS.

JOISTS, GIRDERS, &c.

Rolled Steel Joists, ordinary sections, basis price
Plain Compound Girders, ordinary sections
Plain Compound Stanchions
Angles, Tees, and Channels, ordinary sections
Flitch Plates
Cast Iron Columns and Stanchions, plain ordinary patterns

Prices controlled by the Ministry of Munitions.

Wrought-Iron Tubes and Fittings—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Tubes.		Fittings.
Gas	45	....	50
Water	40	....	47½
Steam	35	....	45
Galvanised gas	27½	....	42½
" water	18½	....	40
" steam	12½	....	37½

L.C.C. Soil Pipe—	Pipes Coated.			London Prices. Bends.			Branches.		
	s. d.			s. d.			s. d.		
2 in. per yd.	2 8	....		2 1	each		2 6		
2½ in. " ..	3 1	....		2 4	"		3 2		
3 in. " ..	3 10	....		2 6	"		3 9		
3½ in. " ..	4 2	....		3 2	"		4 4		
4 in. " ..	4 8	....		3 6	"		5 0		

Rain-Water Pipes, &c.	Pipe.			London Prices. Bends.			Branches.		
	s. d.			s. d.			s. d.		
2 in. per yd.	2 0	....		1 2	each		1 8		
2½ in. " ..	2 2	....		1 5	"		2 0		
3 in. " ..	2 8	....		1 9	"		2 6		
3½ in. " ..	3 0	....		2 1	"		3 0		
4 in. " ..	3 3	....		2 6	"		3 6		

L.C.C. Drain Pipes,—9 ft. lengths. London Prices. 4 in., 5s. 3d. .. 5 in., 6s. 3d. .. 6 in., 7s. 6d.

METALS (*Continued*).

	Per ton in London.	£ s. d.		£ s. d.
Iron—				
Common Bars		16 10 0	to	17 0 0
Staffordshire Crown Bars— good merchant quality		16 10 0	..	17 10 0
Staffordshire " Marked Bars"		17 10 0	..	18 0 0
Mild Steel Bars		19 0 0	..	19 10 0
Steel Bars, Ferro-Concrete quality, £19 basis price.				
Hoop Iron, basis price		20 0 0	..	20 10 0
" Galvanised		33 0 0	..	—
(* And upwards, according to size and gauge.)				
Sheet Iron Black—				
Ordinary sizes to 20 g.		22 0 0	..	22 10 0
" " 24 g.		23 0 0	..	23 10 0
" " 26 g.		24 0 0	..	24 10 0
Sheet Iron, Galvanised flat, ordinary quality—				
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.		32 0 0	..	—
Ordinary sizes to 22 g. and 24 g.		32 0 0	..	32 10 0
Ordinary sizes to 26 g.		35 0 0	..	35 10 0
Sheet Iron, Galvanised, flat, best quality—				
Ordinary sizes to 20 g.		35 0 0	..	—
" " 22 g. and 24 g.		35 10 0	..	—
Ordinary sizes to 26 g.		38 10 0	..	—
Galvanised Corrugated Sheets—				
Ordinary sizes, 6 ft. to 8 ft. 20 g.		31 0 0	..	—
Ordinary sizes, 22 g. and 24 g.		31 10 0	..	—
Ordinary sizes, 26 g.		32 0 0	..	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker		24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.		24 15 0	..	—
Best Soft Steel Sheets, 26 g.		26 10 0	..	—
Cut Nails, 3 in. to 6 in.		28 0 0	..	29 0 0
(Under 3 in., usual trade extras.)				

LEAD, &c.

Delivered in London.	£ s. d.		
Lead—Sheet, English, 4 lb. and up	28 10 0	..	—
Pipe in coils	30 0 0	..	—
Soil Pipe	42 0 0	..	—
Compo pipe	42 0 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s., 6d. per cwt. extra. Orders for over 1 cwt. should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E)], Hotel Victoria, S.W.
Allowance for old lead, £26 per ton.

Copper—					
Strong Sheet per lb.	0	1	6	..	—
Thin " "	0	1	8	..	—
Copper nails "	0	1	6	..	—
Copper wire "	0	1	8	..	—
Brass—					
Strong Sheet "	0	1	6	..	—
Thin " "	0	1	8	..	—
Tin—English Ingots "	0	2	6	..	—
Solder—Plumbers' "	0	1	1	..	—
Tinmen's "	0	1	5	..	—
Blowpipe "	0	1	7	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.	Per Ft.		
15 oz. fourths	4½d.	26 oz. thirds	7½d.
" thirds	5½d.	32 " fourths	8d.
21 " fourths	5½d.	" thirds	9d.
" thirds	6½d.	Fluted Sheet, 15 oz.	4½d.
26 " fourths	6½d.	21 "	7d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

Per Ft.	
¼ Rolled plate	4d.
⅜ Rough rolled and rough cast plate	4½d.
½ Rough rolled and rough cast plate	4½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6d.
Ditto, tinted	7d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted do.	5½d.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil in pipes per gallon		0 5 2
" " " in barrels "		0 5 3
" " " in drums "		0 5 6
Boiled " " in barrels "		0 5 6
" " " in drums "		0 5 9
Turpentine in barrels "		0 4 8
" in drums "		0 4 11
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		53 10 0
Genuine White Lead Paint— "Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots, per ton delivered		69 0 0
Red Lead, Dry (packages extra) per ton		42 0 0

Orders for over 28 lb. of White Lead, White Lead Paint and Red Lead should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E.)], Hotel Victoria, S.W.

Best Linseed Oil Putty	per cwt.	0 14 0
Stockholm Tar	per gallon	0 3 6
Fluocal	per cwt.	0 11 6

VARNISHES, &c.

Per gallon.	£ s. d.
Fine Pale Oak	0 8 0
Pale Copal Oak	0 10 0
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 0
Fine Elastic Carriage	0 12 6
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flatting	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 7 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 18 0
French and Brush Polish	0 15 0

PATENTS.

APPLICATIONS PUBLISHED.*

108,085.—Alfred Ord Tate: Waterproof material, and method and apparatus for manufacturing same.

108,089.—John Shanks: Baths.

108,120.—John Davies and Tuck & Co., Ltd.: Chain links.

108,133.—Charles Alfred Hanser and Cornelis Marinus Van der Klooster: Crane with hydraulic weighing device.

108,144.—James Eadie: Nut-locks.

108,165.—Harold Dix Herpst and Oscar John Larson: Drawers formed with detachable walls.

108,171.—John Henry Bull, George Henry Rogers, and John Whieldon: Permutation locks.

108,181.—Ernest Turner: Ovens.

108,186.—Harold Alfred Rogers: Construction of springs for upholstery and other purposes.

108,188.—Joah Haigh Walker.—Lifting or hauling gear.

108,195.—John Blakey Dawson and John James Jubb: Construction of walls and partitions of buildings and the like structures.

108,204.—The Etna Lighting and Heating Company, Ltd., and Harry Reginald Prosser: Heating apparatus for maintaining store rooms at a regular temperature.

108,219.—Shaw & Carter, Ltd., and George Frederick Carter: Casement stays.

108,228.—Arthur Joseph Helms and Anson Franklin Poley: Mitre tools.

108,238.—Ralph John Smith: Construction of apparatus for cleaning windows, ceilings, walls, and other surfaces.

108,256.—John Pollock: Fittings of window blinds.

108,273.—Maxim Kogan: Method of laying pipes and cables in buildings.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

TRADE NEWS.

The Metropolitan Electric Tramways Company, being unable to obtain wood paving, is relaying its tracks in several of the London boroughs with Lithofalt asphalt blocks, as supplied by the Limmer and Trinidad Lake Asphalt Co., Ltd.

Seasoned
AUSTRIAN, RUSSIAN and JAPANESE **Oak**
SYDNEY PRIDAY,
KING WILLIAM HOUSE, 2a, Eastcheap, LONDON, E.C.
Depot: Wainscot Sheds, Millwall, E. *T.N.: Avenue 667.*

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 12 *noon on Wednesday.*

* Denotes *accepted.* † Denotes *provisionally accepted.* ‡ Denotes *recommended for acceptance.*

ABERCARN.—For the painting of 98 houses at Cwmcarn, for the Abercarn U.D.C. Mr. J. Williams, Surveyor:—

J. E. Francis & Co.	£307 4
Hatfield & Stocker	294 0
*F. Lawrence, Corporation-road, Newport	250 0

GLASGOW.—The Tramways Committee of Glasgow has accepted the tender of Hadfields, Ltd., Sheffield, for special track work.

GLASGOW.—Repairs at Nithsdale Hall, for the Corporation:—

*J. D. Menzies & Co.	£64 10

LIMPSFIELD.—For laying 990 yards of 6-in. stoneware sewers, 263 yards of cast-iron sewers, the construction of manholes and lampholes in connection therewith; also for the construction of settling tanks, bacterial filters and siphon chambers and laying out irrigation land for treatment of sewage at Palns Hill, Limpsfield, for the Godstone R.D.C. Mr. T. C. Barralet, M.I.M.E., Surveyor, Council Offices, Oxted, Surrey. Quantities by Surveyor:—

G. Wimpey & Co., Hammersmith	£1595 2 8
Franks, Harris & Co., Guildford	1553 4 2
A. J. Tully, Croydon	1380 3 9
J. Dickson, St. Albans	1353 18 4
H. Hemmings, Thornton Heath	1305 0 0

[Surveyor's estimate, £1350.]

MAIDSTONE.—For drainage works at 117 to 127, Kingsley-road, for the Corporation:—

Martin & Newman	£111 1 4
Cruttenden & Son	110 13 0
Norman Smith	106 3 3
G. Pearce & Sons	95 0 0
*R. C. Barney & Son	94 12 6

STRETFORD.—For alterations to two engines at the generating station, for the U.D.C.:—

*Bellis & Morcom, Birmingham	£200

J. J. ETRIDGE, Jr.
SLATE MERCHANTS, LTD
EXPERTS IN
SLATING, TILING.
STRIPPING AND RELAYING.
Telephone: Avenue 4940 (two lines), or write
Bethnal Green Slate Works,
BETHNAL GREEN, LONDON, E.

TO CORRESPONDENTS.

NOTE.—All communications with respect to literary and artistic matters should be addressed to "THE EDITOR" (and not to any person by name); those relating to advertisements and other exclusively business matters should be addressed to THE BUILDER, LTD., and *not* to the Editor.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications; and the Editor cannot be responsible for drawings, photographs, manuscripts, or other documents, or for models or samples sent to or left at this office, unless he has specially asked for them.

AUSTRIAN and RIGA.
FIRST-CLASS, MILD GRAINED, DRY
WAINSCOT **OAK.**
J. GLIKSTEN & SON, Ltd.,
Carpenter's Road, Stratford, E.
Telegrams: "Gliksten, Strat, London. *Telephone No.:* Eastern 9771 (6 lines).

LONDON & LANCASHIRE FIRE INSURANCE COMPANY LTD
Security: £6,652,243.
FIRE.
CONSEQUENTIAL LOSS.
ACCIDENTS.
BURGLARY. PLATE GLASS.
EMPLOYERS' LIABILITY.
MARINE.
Head Offices { 45, Dale Street, Liverpool. 155, Leadenhall Street, E.C.

Asphalte.—The Seyssel and Metallic Lava Asphalte Co. (Mr. G. F. Glenn), Office, 42, Poultry, E.C.—The best and cheapest materials for damp-courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds and milk-rooms, granaries, tun-rooms, and terraces. Asphalte Contractors to Forth Bridge Co. T.N. Central 2614.

GALVANIZED CORRUGATED ROOFING SHEETS
BEST QUALITY
Perfectly and thickly coated with zinc, insuring real durability.

GOOD STOCKS
kept at our London Works in all the usual lengths and gauges.
Prompt delivery *can be given, whether straight sheets or curved to any ordinary radius.*
FREDK BRABY & CO. Ltd. 352 to 364, Euston Road, N.W. 1 / Ida Works, Deptford, S.E. 8 } LONDON.

ART METAL CONSTRUCTION CO LTD

RONEO BUILDING
5 & 6 HOLBORN E.C

ASSOCIATED WITH RONEO LTD

Propr of ST PANCRAS IRONWORK Co and CHECKFIRE DOOR Co:

FIREPROOF SHELVING for Modern Buildings.

Modern buildings are fireproof and built to last, and the interior should be fitted in conformity with the exterior structure. This is rapidly becoming recognised and explains why this light steel shelving is in such great demand. It is far superior to wood or cast iron and will carry a much greater weight without the least signs of warping or breaking, while it takes up much less space.

It has no sharp edges, and is entirely free from scale—the surface being as smooth as glass.

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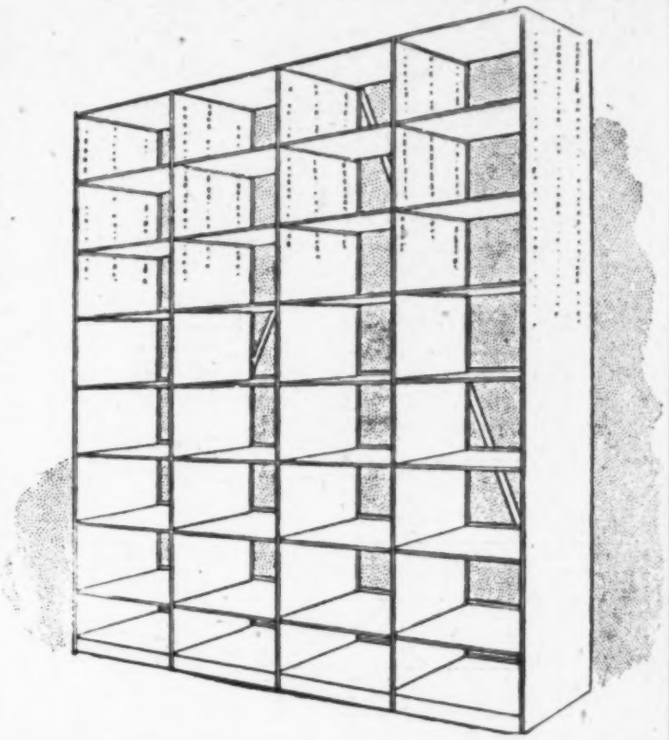

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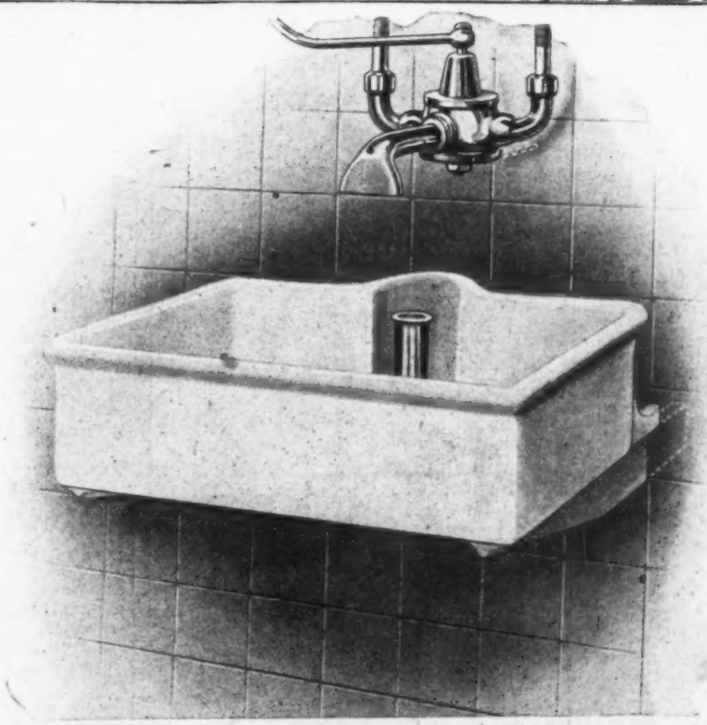

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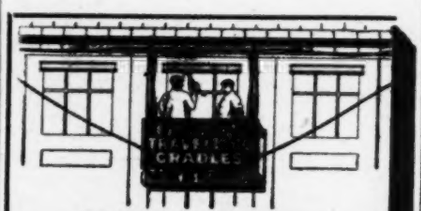

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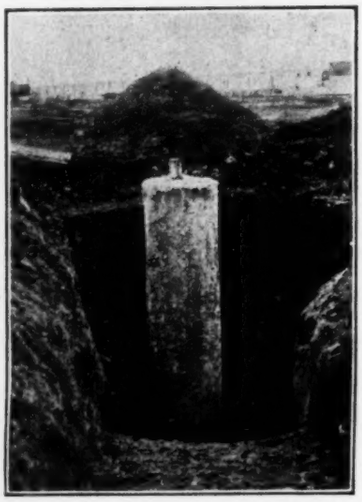

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